



Public Private Partnership Support Facility

Risk Management Report

For the Period Ended Oct 2024 to Dec 2024

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A. Status of PSF's update on the implementation of PPP fiscal risk assessment and updates to PPP Policy Board

The following section of the risk report explains the general form of the risk report, the content of the various sections, and its implementation status based on the outline. The outline also highlights the need for further improvement in some key areas that are dependent on external factors. The report is addressed to its recipients within the PPP Framework, for examples PSF, PPP Unit, PPP Policy Board and the Board of PSF.

Table 1: Risk Report Outline

S.No	Process Outline/Objective	Status	Action Needed if any
1.	Project Wise Coverage for Projects approved by PSF Board	Under Implementation	This section provides recommendations for enhancing risk transference for the relevant stakeholders, namely the PSF BoD and the PPP Policy Board. Recommendations pertain to issues such as for instance, it's advisable for the GoS to prioritize the completion of its CPs prior to project implementation. Additionally, establishing well-defined KPIs to delineate performance expectations from private parties would contribute to a more comprehensive risk management approach.
2.	Sectoral Coverage for PPPs	Under Implementation	This section is intended to demonstrate the general overview of various sectors in which PPPs are

			implemented. It covers an evaluation of the risks, potential and realized benefits engendered by PPPs within these sectors while effectively mitigating the observed risks.
3.	Affordability and Contingent Liabilities for PPP projects approved by PSF Board	Under Implementation – Needs refinement in information retrieval	Enhancing this process involves refining both the accuracy and promptness of data. The financial model held by the IA for ongoing projects stands as one of the most reliable data sources. Additionally, prioritizing high-quality IE reports further contributes to the reliability of information.
4.	Affordability/Contingent Liabilities for PPP portfolio as a whole	Under Implementation - Needs refinement in information retrieval	This process can be further refined by improving the timeliness and veracity of the data.
5.	Work Done for the Quarter Ended December 2024		
6.	PPP Related Risk Issues/Methods	Under Implementation	In this section, any general matters which either explain a facet of PPPs in terms of risk related issues and/or methods which help in risk estimation etc. are to be outlined.
7.	Reflect the project costs as per RCF and RVA techniques so Cost and Schedule Over run is accounted for	Under Implementation – Needs refinement in information retrieval	This process can be enhanced by optimizing timely delivery of accurate data

B. Summary of the current risk report

This Risk Report serves multiple purposes such as:

- i. Highlights project-specific risks and elaborates upon risk mitigation measures already embedded in the projects' Concession Agreement, and suggests risk mitigation measures for risks assessed by PSF.
- ii. Provides a complete picture of fiscal commitments that the GoS may have to incur in the likely occurrence of the assessed risk events. These fiscal commitments include direct obligations, contingent obligations, and measures of affordability against available fiscal space.

1. PROJECT WISE RISK ANALYSIS

A. Ongoing PPP Projects in Sindh Education Sector

During this quarter, SELD managed to finalize the bid analysis process of Girls' Elementary School Project to outsource O&M of 54 public sector schools, rehabilitated under Japan International Cooperation Agency (JICA) assistance, under PPP mode. As stated earlier in previous quarterly report, in the first phase of this project, SELD initiated the procurement process of 03 packages comprising 19 girls' elementary schools for public private partnership contracts. It is hoped that the complete procurement process will get approved by PPP Policy Board and the concession agreements will be signed in the next quarter.

In respect of EMO-7, which was approved by the Board in January 2024, the SELD issued notifications of effective date of remaining 3 packages i.e. Package 1, 3 and 4. Whereas the commencement date(s) of two packages i.e. package# 5 and 6 have been issued so far i.e. till this quarter.

During this quarter, PSF provided its technical support to PPP-Unit (Finance Department) and PPP-Node (SELD) in the following PPP projects at their preliminary stage(s):

- Sindh Secondary Education Improvement Project (SSEIP)
- Provision of Free Transport to the Girls Students of Grade 9-12 in Selected Districts
- Consultancy Services for Impact Assessment/ Study of EMO project under PPP mode

Ongoing/Emergent Issues in Sindh Education Sector

Table 5: Ongoing and Emergent Issues in Education Sector

S.No	Project/Issue	Nature of Issue
1	EMO-RFP-7 – Commencement Date of Facilities	The handing over of EMO-RFP-7 school facilities is delayed over a year now. Out of six packages, commencement date of only two packages i.e. packages, #5 District Jacobabad-I and package# 6 District Jacobabad-II have been issued till this reporting quarter. It means that SELD took one year to issue the commencement date i.e. start of actual operations of the schools after it had issued handing over notification of these schools in January – February 2024. It may result in the operational risks of the project which were due/planned in the 1 st quarter of the 2024 academic year. Hence, the operational risk is still categorized to medium level.

2	Teachers Training Institutes - Delay in Rehabilitation Work	PSF has continuously been reporting the challenges in execution of installation/ rehabilitation period of the project for the last three quarterly reports. Despite a high-level meeting with Secretary SELD along with DG PPP Unit, the issue still remains unsettled. Though, there has been slight progress in the previous quarter by issuing the effective date notifications of TTI project, the actual progress at the sites is still awaited. Hence, the operational risks of the project is categorized High level.
3	Education Projects Overall – Contract Management	This issue remains prominent due to insufficient staff at PPP-Node of SELD which works as PIU of EMO reform as well. Effective contract management is still a big challenge as it was in the initial days of the project. The remedial strategy for the appointment of contract compliance manager in the project team also couldn't bring the desired results. Hence the general weakness in accountability remains strong. The other reasons for ineffective contract management include insufficient number of staff, weak administrative powers and capacity to timely address the project issues and poor record keeping at PPP-N of SELD. The PPP-Node of SELD recently started to monitor the progress of the EMOs through online dashboard of the data management software. This provision may help to increase the efficiency of the progress monitoring mechanism. However, it may take 2-3 quarters to determine whether the initiative had been as effective as it was conceived. This risk may also be further mitigated if human resources of PPP-Node is strengthened.

5	Education Management Organization Project - Data Management/ Availability of Effective Information System	Data management and effective information system is a fundamental deliverable of the EMOs to be used as an evaluation source for assessing the progress of the project. However, this system was not able to provide real-time data and information about the progress/ status of the project. PPP-Node has worked out a centralized Education Management and Reporting System (EMIRS) where to the EMO will transfer or update their data in real time. PSF will coordinate PPP-Node to have an orientation session about the EMIRS. After its successful launch, several risks pertaining to contract management, quarterly reports and governance may be reduced.
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Affordability and Contingent Liability of Education Sector Projects

Though one new project for the education sector i.e. Girls Elementary Schools project was included in the previous quarterly report, however, the potential financial activity couldn't take place which may affect the financial scenario of the education PPP projects in this quarter. Hence, the affordability, contingent analysis and funding ratio analysis will remain the same as done in the previous quarter.

As per the Affordability and Contingent Liability Analysis conducted by the PSF, both these amounts will not make an adverse financing burden on the GoS budgetary outlays and resources. Our finding is based on the following indicators:

For affordability analysis, the total bid cost of all education projects, so far, for 10 years' period was compared to the current FY 2024-25 ADP budget of GoS which ranges from 0.012% - 0.403% of the GoS provincial ADP Budget of FY 2024-25. When it is compared to ADP budget of SELD for the same FY i.e. 2024-25, the EMO cost of all these projects shall have an impact range, in percentage terms, between 0.128 % (2016) and 4.141% (2024).

Table 6: Annual recurring obligations in Education PPPs i.e. EMOs and TTIs

											493,092.00	48,030
Year	EMO-1	EMO-2	EMO-3	EMO-4	EMO-5	EMO-6	EMO-7	TTIs	Total (EMOs+TTIs)	Total in Million	% of Provincial GoS-ADP 2024-25	% of Provincial SELD-ADP 2024-25
2016	61,437,904								61,437,904	61.44	0.012%	0.128%
2017	59,022,910	84,856,882							143,879,792	143.88	0.029%	0.300%
2018	62,934,982	65,909,743	286,973,716						415,818,441	415.82	0.084%	0.866%
2019	68,534,496	72,553,938	163,065,486	296,965,825					601,119,745	601.12	0.122%	1.252%
2020	72,481,312	78,124,444	181,541,039	135,395,648					467,542,443	467.54	0.095%	0.973%
2021	78,037,474	85,141,360	197,453,389	147,896,044	377,598,205				886,126,471	886.13	0.180%	1.845%
2022	84,819,841	90,951,542	208,516,956	163,417,024	183,849,508	140,361,818			871,916,689	871.92	0.177%	1.815%
2023	90,904,561	103,306,649	217,934,278	173,336,804	186,421,231	76,052,258		144,273,085	992,228,867	992.23	0.201%	2.066%
2024	97,425,198	108,765,504	266,146,314	188,243,032	219,165,519	82,791,155	958,212,491	68,079,370	1,988,828,584	1,988.83	0.403%	4.141%
2025	105,444,147	120,763,092	244,848,128	205,733,456	209,435,917	91,057,165	575,785,579	71,613,195	1,624,680,678	1,624.68	0.329%	3.383%
2026		130,883,929	267,004,519	227,936,504	221,203,410	100,476,777	580,016,352	77,915,532	1,605,437,022	1,605.44	0.326%	3.343%
2027			279,446,590	243,149,336	245,462,103	124,085,408	633,276,756	84,794,820	1,610,215,013	1,610.22	0.327%	3.353%
2028				264,810,864	236,580,748	121,118,881	692,913,402	100,373,595	1,415,797,490	1,415.80	0.287%	2.948%
2029					245,587,865	133,188,587	828,446,107	108,626,678	1,315,849,237	1,315.85	0.267%	2.740%
2030					259,352,468	146,961,938	852,710,147	109,567,147	1,368,591,700	1,368.59	0.278%	2.849%
2031						161,592,695	906,798,223	119,325,971	1,187,716,888	1,187.72	0.241%	2.473%
2032							993,563,474	129,960,756	1,123,524,230	1,123.52	0.228%	2.339%
2033							1,087,294,851	67,756,808	1,155,051,659	1,155.05	0.234%	2.405%
2034							277,773,958		277,773,958	277.77	0.056%	0.578%
	781,042,825	941,257,084	2,312,930,414	2,046,884,537	2,384,656,972	1,177,686,682	8,386,791,341	1,082,286,957	19,113,536,811	19,113.55		

The contingent liabilities as percentage of GoS-School Education provincial ADP Budget (without FPA) of current FY 2024-25 ranges from 0.49% (2033) – 1.00% (2024) for a period from 2024- 2033.

Table 7: Contingent Liabilities in Education PPPs i.e. EMOs and TTIs

Year	EMO-1	EMO-2	EMO-3	EMO-4	EMO-5	EMO-6	TTIs	EMO-7	Total	Percentage of Annual Development Budget		
										SELD @ Rs. 20.0 billion (without FPA)	SELD @ Rs. 48.03 billion (with FPA)	GoS @ Rs.493.09 billion
2016	4,200,000	-	-	-	-	-	-	-	4,200,000			
2017	4,220,000	7,671,394	-	-	-	-	-	-	11,891,394			
2018	4,242,000	7,766,394	34,024,146	-	-	-	-	-	46,032,540			
2019	4,266,200	7,869,394	21,660,897	-	-	-	-	-	33,796,491			
2020	4,292,820	7,981,119	24,235,756	14,848,291	-	-	-	-	51,357,986			
2021	4,322,102	8,102,363	26,157,853	6,769,782	34,482,192	-	-	-	79,834,292			
2022	4,354,312	8,233,995	27,512,480	7,394,802	19,333,017	10,039,636	-	-	76,868,242			
2023	4,389,744	8,376,966	28,432,289	8,170,851	19,848,746	9,287,475	14,841,291	-	93,347,362	0.47%	0.19%	0.02%
2024	4,428,718	8,532,320	33,596,916	8,666,840	23,611,194	10,172,662	19,538,339	92,253,437	200,800,426	1.00%	0.42%	0.04%
2025	4,471,590	8,701,200	32,241,407	9,412,152	23,121,025	11,189,929	21,034,861	48,430,577	158,602,741	0.79%	0.33%	0.03%
2026	-	8,884,857	34,932,419	10,286,673	24,439,612	12,308,921	22,649,024	52,816,935	166,318,441	0.83%	0.35%	0.03%
2027	-	-	36,316,000	11,396,825	27,641,628	13,963,092	24,390,350	57,623,553	171,331,448	0.86%	0.36%	0.03%
2028	-	-	-	12,157,467	27,417,960	14,893,795	26,269,159	62,891,540	143,629,921	0.72%	0.30%	0.03%
2029	-	-	-	13,240,543	28,801,147	16,383,174	28,296,633	73,952,817	160,674,314	0.80%	0.33%	0.03%
2030	-	-	-	-	31,754,554	18,021,492	30,484,893	74,996,775	155,257,713	0.78%	0.32%	0.03%
2031	-	-	-	-	-	19,823,641	32,847,081	81,938,219	134,608,940	0.67%	0.28%	0.03%
2032	-	-	-	-	-	-	35,397,446	89,550,355	124,947,802	0.62%	0.26%	0.03%
2033	-	-	-	-	-	-	-	97,899,081	97,899,081	0.49%	0.20%	0.02%

PSF Board so far approved seven projects (RFP#1 to RFP#7) of schools, one project of Teacher Training Institutes (3 TTIs) and one project of Girls Elementary School (JICA Assisted Schools phase-I) in education sector for their funding from VGF-PSF. PSF provides support funds to these projects from new VGF with the financial assistance of the EPPP project effective from April 2018 to December 2024¹. Whereas funding before that date i.e. April 2018 (if any) to be done through old VGF

The EPPP funding is provided by three agencies with ratio as below; - Partners' share formula has been given below;

Table 8: Funding Ratio of EPPP

- Partner Name	Initial Ratio	Revised Ratio	Current Ratio ²
ADB	58.49%	68.33%	76.49%
FCDO	6.99 %	8.16%	NIL
GOS	34.52 %	23.51%	23.51%

- GOS to bear Tax Amount in addition to its agreed share.

Following table³ elaborates PSF ratio separately and accumulative for funding support to all procurements under EMO reform and PPP mode.

Table 9: Funding Detail of PPP Education Projects by PSF

RFP#	No. of Schools	Total Bid Cost	Expenditure before EPPP	PSF-EPPP (April 2018-December 2024)				PSF-GoS	PSF Total
				Total EPPP Share	ADB+FCDO	GoS			
				Initial Ratio (Upto June 2022)	65.48%	34.52%	Tax	From Jan 2025-onward	Outstanding till End of the Project
				Revised Ratio (July 2022 and December 2022)	76.49%	23.51%			
				Current Ratio (July 2022 and December 2022)	76.49%	23.51%			
1	4	781,042,825	120,460,814	531,205,673	302,025,616	128,250,978	100,929,078	129,376,338	660,582,011
2	5	941,257,084	84,856,882	577,965,661	329,162,607	138,989,578	109,813,476	278,434,541	856,400,202
3	14	2,312,930,414	0	1,404,473,648	797,972,589	339,615,250	266,885,809	908,456,767	2,312,930,414
4	45	2,046,884,537	0	1,058,193,619	600,232,593	256,904,238	201,056,788	988,690,918	2,046,884,537
5	71	2,384,656,972	-	912,243,084	565,197,535	173,719,363	173,326,186	1,472,413,889	2,384,656,972
6	32	1,177,686,682	-	257,809,654	159,730,869	49,094,950	48,983,834	919,877,028	1,177,686,682
7	40	8,386,791,341	-	958,212,491	564,361,286	220,388,873	173,462,333	7,428,578,849	8,386,791,341
Sub-Total (EMOs)	211	18,031,249,854	205,317,696	5,700,103,828	3,318,683,095	1,306,963,230	1,074,457,503	12,125,828,330	17,825,932,158
TTIs	2	1,082,286,957	-	246,652,897	152,818,489	46,970,358	46,864,050	835,634,060	1,082,286,957
Total	213	19,113,536,811	205,317,696	5,946,756,725	3,471,501,584	1,353,933,588	1,121,321,553	12,961,462,390	18,908,219,115

As such 57% (Rs. 10.91 billion) of total bid cost (Rs. 19.11 billion) of all education PPP projects approved by PSF Board is projected as payable amount by PSF from April 2018 till project life (*each*

¹ The terminal date of EPPP period may be changed till December 2026 as the project extension is in due process.

² This funding ratio has been kept changing, after mutual agreement between ADB and GoS, initial ratio was applicable till June 2022 (EMO 1-5); revised ratio was applicable from July 2022 to December 2022 (EMO-6 and TTIs) and current ratio is applicable from January 2023 to December 2024 (EMO-7). All funding amount is taken from relevant PARs as approved by PSF Boards.

³ Extracted from approved PARs of all i.e. RFP#1 to RFP#7 and TTIs. However, the cost of Girls Elementary School Project is not included as the project is in process of procurement.

project is of 10-year duration except TTIs which is of 10.5 year and EMO-7 as of 10.25 years) of each school/project.

The cumulative funding of education PPP projects is projected as amount of Rs. 6,016⁴ million which accounts for 19.07% of total EPPP project.

Table 10: Funding and its proportions in EMOs

Partner Name	VGF Amount under EPPP (US\$)	PKR Amount @ PKR/USD 278.22*	% Loan**			Total-Education PPPs (EMOs+TTIs)	Education PPPs' % of Total VGF
			Initial	Revised	Current		
ADB	70	19,475	58.50%	68.30%	76.50%	3150	16.17%
FCDO	11.41	3,174	7.00%	8.20%	0.00%	309	9.74%
GoS	25.02	6,961	34.50%	23.50%	23.50%	1297	18.63%
Taxes (GoS)						1260	18.10%
Total	106.43	29,611	100%	100%	100%	6016	20.32%

B. Ongoing PPP Projects in Sindh Health Sector

During this reporting period, no other PPP project of health sector was presented to the PSF Board seeking for their approval. Hence, so far, two health sector projects i.e. “Outsourcing Safety and Security Services at JPMC” and “Outsourcing Management of Regional Blood Centre (RBC)- Jamshoro” remained approved by the PSF Board. The funding support for RBC Jamshoro under EPPP has also been concurred by ADB in this quarter. Moreover, PSF received a request for providing funding support to RBC Sukkur on the same pattern as is approved for RBC Jamshoro. Funding was approved on Jan 9th 2025 after pre-clearance by IFRMC in Dec 2024. PAR for the project was prepared during the Quarter ended December 2025.

The other details of the two projects remain the same as were stated in the previous report. The extract of the same is being reproduced for reference and perusal.

JPMC project is in the procurement phase; hence the actual financial implications of the project are not included in this report.

RBC-Jamshoro is the sub-project of ‘Outsourcing Management of 4 RBCs in Sindh’ project. The project was started in 2018 through a management contract between Health Department GoS and Indus

⁴ Amount difference is due to changing exchange rates. All these amounts were calculated till due payments under EPPP till December 2024. After the amendment in the EPPP contract is formally agreed to extend the project till December 2026, these amounts and shares of percentages is likely to be going to change accordingly. .

Hospital Network. The scope of the network was initially mapped at screening of 20,000 blood bags annually. However, the screening of blood bags reached 70,000 bags annually in its first year of operation. The operator requested to revise the scope of work accordingly. It took longer time to determine the scope of work along with the enhancement of the cost of the project. After due process, an amended agreement has been signed between the two parties with scope agreed as 100,000 blood bags screening on the revised cost of Rs. 5.7 billion for the 10 years project period ending in 2028.

Table 11: Ongoing/ Emerging Issues in PPP Projects in Health Sector

S. No	Project/Issue	Nature of Issue
1	JPMC	PSF provided its technical feedback in devising the project structure and assessment of its viability for PPP mode. PSF also provided feedback on drafting the project documents including RFP and management contract. However, PSF couldn't find the evidence if its feedback on draft management contract was addressed. However, PSF continuously followed up in reminding the PPP-Unit and PPP-Node of Health Department to address the PSF observation accordingly. The TFEC of the JPMC project, in its first meeting, also provided some observations on the structure of the project and proposed certain changes. PSF asked to share the observations and changes, if any, in the structure. The response is still awaited.
2	RBC Jamshoro	The project was started in 2018 and has entered its sixth year of total 10 years project period. The scope as well as cost of the project has been enhanced due to higher than the initially assessed demand for blood bags. However, four out of seven Hospital Based Blood Banks (HBBs) couldn't be operationalized in the first half life of the project. If non-operationalization of the four HBBs remains consistent, the project objectives may be compromised which might lead the project risks to an upper level from the existing low level.

Affordability and Contingent Liability of Health Sector Projects

As per the Affordability and Contingent Liability Analysis conducted by the PSF, both these amounts will not make an adverse financing burden on the GoS budgetary outlays and resources. Our finding is based on the following indicators:

For affordability analysis, the total bid cost of health sector projects, so far, for 10 years' period was compared to the current FY 2024-25 ADP budget of GoS which ranges from 0.016% - 0.18% of the GoS provincial ADP Budget of FY 2024-25. When it is compared to ADP budget of Health Department for the same FY i.e. 2024-25, the project cost shall have an impact range, in percentage terms, between 2.44 % (2025) and 2.82% (2027)

Table 12: Annual recurring obligations in RBC Jamshoro

Total Budget Outlay for Health Sector PPP Projects				
Year	RBC Jamshoro	% of Development Budget		
		GoS- Rs. 493,092,000,000	Health Department (with FPA)- Rs. 31,467,330,000	Health Department (without FPA)- Rs. 18,000,000,000
2018	421,401,414			
2019	211,536,249			
2020	219,997,699			
2021	228,797,607			
2022	578,695,890			
2023	754,048,075			
2024	823,396,412	0.17%	2.62%	4.57%
2025	768,416,929	0.16%	2.44%	4.27%
2026	825,629,998	0.17%	2.62%	4.59%
2027	887,284,790	0.18%	2.82%	4.93%
2028		0.00%	0.00%	0.00%
	5,719,205,063			

The contingent liabilities as percentage of GoS and Health Department provincial ADP Budget (without FPA) of current FY 2024-25 ranges from 0.49% (2033) – 1.00% (2024) for a period from 2024- 2033. These are conservative estimates based on other management contracts for PPP projects.

Table 13: Contingent Liabilities in Health PPPs i.e. RBC- Jamshoro

Year	RBC Jamshoro	Percentage of Annual Development Budget 2024-25		
		HD @ Rs. 18 billion (without FPA)	HD @ Rs. 31.47 billion (with FPA)	GoS @ Rs.493.09 billion
2018	31,214,920			
2019	15,669,352			
2020	16,296,126			

2021	16,947,971			
2022	17,625,890			
2023	18,330,925			
2024	19,064,162	0.11%	0.06%	0.004%
2025	19,826,729	0.11%	0.06%	0.004%
2026	20,619,798	0.11%	0.07%	0.004%
2027	21,444,590	0.12%	0.07%	0.004%
2028	-	0	0.00%	0.000%

PSF Funding Ratio

PSF Board so far approved two projects of health sector which include Provision of safety and security services in JPMC Karachi and operation & management of RBC Jamshoro for their funding from EPPP funds through VGF-PSF.

The EPPP funding is provided by three agencies with ratio as below; - Partners' share formula has been given below.

Table 14: Funding Ratio of EPPP

- Partner Name	Initial Ratio	Revised Ratio	Current Ratio ⁵
ADB	58.49%	68.33%	76.49%
FCDO	6.99 %	8.16%	NIL
GOS	34.52 %	23.51%	23.51%

- GOS to bear Tax Amount in addition to its agreed share.

Following table⁶ elaborates PSF ratio separately and accumulative for funding support to all procurements PPP mode.

Table 15: Funding Detail of PPP Health Projects by PSF

Regional Blood Centre (RBC) Jamshoro Project under PPP Mode										
S. No.	Project Name	HMO	Bid Cost	Bid Cost under EPPP (April 2018 to December 2024)		ADB Share	GoS Share (Excl. Tax)	Tax Amount	GoS Share (Incl. Tax)	Remaining Amount to be paid by GoS
			10 years budget	Inclus. of Tax	Exclus. of Tax	76.49%	23.51%	13% (SST) of the EPPP period	EPPP period	After December

⁵ This funding ratio has been kept changing, after mutual agreement between ADB and GoS, initial ratio was applicable till June 2022; revised ratio was applicable from July 2022 to December 2022 and current ratio is applicable from January 2023 to December 2024. All funding amount is taken from relevant PARs as approved by PSF Boards.

⁶ Extracted from approved PARs of RBC- Jamshoro. However, the cost of JPMC is not included as the project is in process of procurement.

										2024 till end of project life
1	RBC Jamshoro	Indus Hospital	5,719,205,063	3,058,629,756	2,661,007,887	2,035,404,933	625,602,954	397,621,868	1,023,224,823	2,660,575,308
	Total		5,719,205,063	3,058,629,756	2,661,007,887	2,035,404,933	625,602,954	397,621,868	1,023,224,823	2,660,575,308

The cumulative funding of health PPP projects is projected as amount of Rs. 3,059⁷ million which accounts for 10.3% of total EPPP project.

Table 16: Funding and its proportions in PPP projects in Health Sector

Partner Name	VGF under EPPP (US\$)	VGF under EPPP (PKR @ 278.1188)*	% Loan Ratios	Health Sector		
			Updated	RBC Jamshoro	Total Health Sector Projects	% share of VGF
ADB	70.00	19,468	76.5%	2,035	2,035	6.9%
FCDO	11.41	3,173	0.0%	-	-	0.0%
GoS	25.02	6,959	23.5%	626	626	2.1%
Taxes (GoS)				398	398	0.0%
Total	106.43	29,600	100.0%	3,059	3,059	10.3%

*Exchange Rate of PKR 278.21 / USD on 03 May 2024 (source <https://www.sbp.org.pk/DFMD/fem.asp>)

Table 17: Project approved by PSF Board yet to be tendered

⁷ This funding amount under EPPP has been calculated on basis of project termination date till December 2024. As mentioned earlier in education sector project reports, the extension of EPPP project till December 2026 is in process. The funding amount will likely to be changed if the amendment in EPPP contract is agreed to extend the project till December 2026.

S. #	Project Name/ Stage	PSF Board Status	Project Status /Policy Board	Remarks/Comments
	JPMC/ Pre-Procurement Phase	This project has been conditionally approved by the PSF Board. Government has decided to launch the RFP soon.	TFEC held the first meeting and shared some observations with the consultant to address them accordingly. The procurement documents are being finalized by the consultant. Hopefully, the project may be launched in the next quarter.	In PSF's view the concession agreement can be strengthened further and the comments in this regard have been shared by PSF with the PPP Unit. A comprehensive service/ops manual should also be prepared with KPIs clearly linked to each service area.

1. SECTORAL COVERAGE

Transport, Road and Motorways Sector

To date, GoS has 6 ongoing road project, three of which have achieved construction completion, namely Hyderabad Mirpurkhas Dual Carriageway, Jhirk Mulla Katiyar Bridge Project and Karachi Thatta Dual Carriageway Project. Three further projects are under construction, these include Ghotki Kandhkot Bridge Project, Link Road Project and Malir Expressway Project (partially completed). PSF has reviewed three of these projects since 2019 and two of these namely Ghotki Kandhkot and Malir Expressway were conditionally approved by PSF Board subject to compliance with E&S safeguards. ADB has however dropped these from the priority list of projects to be undertaken under EPPP funding.

Social Sector Projects

Table 2: Education PPP/ Health PPPs approved

Project	No of Packages/Facilities	PSF Approved on	Total Project Cost	Project Duration	Estimated Number of Beneficiary
EMO-1	04 packages/04 schools	19 08 2019	PKR 781,042,825	10 years April 2016- April 2026	3000 students
EMO-2	05 packages/05 schools	19 08 2019	PKR 941,257,084	10 years February 2017- February 2027	5000 students
EMO-3	14 packages/14schools	04 02 2020	PKR 2,312,930,414	10 years February 2018-February 2028	10000 students
EMO-4	04 packages/45 schools	31 03 2021	PKR 2,046,884,537	10 years April 2019- April 2029	25000 students
EMO-5	05 packages/71 schools	27 06 2021	PKR 2,384,656,972	10 years January 2021-January 2031	35000 students
EMO-6	03 packages/32 schools	29 12 2021	PKR 1,177,686,682	10 years April 2022- April 2032	15000 students
EMO-7	06 packages/40 schools	20 12 2023	PKR 8,386,791,341	10.25 years, September 2024- December 2034	25000 students
Teacher Training Institutes (TTIs)	02 TTIs	06 04 2022	PKR 1,082,286,957	10.5 years, September 2024- March 2035	3500 pre-service and 6000 in service teachers
RBC Jamshoro	01 RBC linked with 7 HBBs	09 07 2024	PKR 5,719,205,063	10 years, February 2018-February 2028	1,500,000 patients
RBC Sukkur	01 RBC linked with 7 HBBs	09 01 2025	PKR 2,494,693,536	10 years, February 2018-February 2028	600,000 patients

Education Sector

Education Management Organization (EMO) reform is one of the GoS initiative focusing on the objectives of improved access and governance, better quality education and effective utilization of public resources. For this purpose, the operation and management of selected public schools/institutes is outsourced to credible and experienced private sector parties to make them helpful in achieving the targets as set out in Key Performance Indicators (KPI) framework based on the objectives of the EMO reform.

The PPP Support Facility (PSF) has, to date, approved funding of 211 schools and 3 (three) Teacher Training Institutes (TTIs), which were outsourced under 8 rounds of procurements,⁸ amounting to PKR 19,743 million in terms of nominal value. However, one of the operators of the TTI project requested to withdraw his offer to operate the GECE Sukkur which turned the project comprising 2 (two) TTIs lowering the project amount to PKR 19,113 million.

During the current quarter, the Board of PSF approved the structure for Girls' Elementary Schools (rehabilitated under JICA assistance program) to be outsourced to EMO. The project aims to enhance girls' access to post-primary education in Sindh. The project will be implemented in selected 54 Girls Elementary Schools. In the first phase, the procurement process of outsourcing the management of 19 out of 54 schools has been initiated. Hopefully, the procurement process will be completed in few weeks and the cost of the project (first phase) will be made part of the next quarterly report.

The overall risk profile of the project is low as PSF is of the view that the Concession Agreements have satisfactorily allocated the perceived risks between the Government and the private parties which might be got further mitigated if implemented with true spirit.

Table 3: Education PPP (number of institutes and funding)

Education PPPs	# of Procurements	# of Schools	Funding Approved (Rs. In mn)
EMOs- SBEP	7	211	18031.249
TTIs	1	2	1082.287
EMOs-JICA	1	19	TBD

Health Sector

GoS has initiated numerous health projects under PPP modality which included operations and management of health facilities through Health Management Organizations, outsourcing security and safety services at National Institute of Child Health (NICH), operation and management of Regional Blood Centers (RBCs) etc.. PSF has reviewed all of the aforementioned.

PSF has principally approved the structure of the health sector project to procure a management contract with a credible private partner for provision of safety and security services at Jinnah Post Graduate Medical Centre (JPMC) Karachi. The PSF Board, in its meeting held on 17th January 2023, approved to fund the project with some advice to review and explore an option if the salary of human resource under this project may be sorted out from VGF (old VGF).

The Health Department constituted a Technical and Financial Evaluation Committee (TFEC) to launch the JPMC project. The TFEC, in its first meeting, proposed some changes in the structure of the project and asked the consultant to prepare the final draft of project documents based on the revised structure. PSF has asked PPP-Unit and PPP-Node of the health department to share the changes for assessing whether they might be considered substantial changes. In that case, PSF Board will be presented the changes to get their approval accordingly.

Minutes of the meeting is in process of signing by TFEC member, RFP to be launched soon after minutes are signed from all members.

Apparently, a potential financial risk may be faced by the project due to the delay in the procurement process.

PSF Board, in its meeting held on 14 July 2024, also approved another health sector project i.e. Outsourcing the management of RBC Jamshoro for its funding from EPPP. PSF informed ADB about approval of the project and shared with them all the relevant documents for seeking the endorsement from ADB. The project cost is estimated as PKR 5,719 million out of which PKR 3,059 million will be funded from EPPP with effective date from April 2028 to December 2024.

The project has been operated by private partners for more than six years. Based on the progress evaluation reports by the Independent Expert, the project may be categorized, overall, at low risk.

Water Supply Sector

The Government of Sindh is working on multiple projects for the supply of water transmission, filtration and distribution. These include Nabisar Vajihar project (under construction) TP1, (Feasibility completed), TP4, 5MiGD Desalination Project, 65 MiGD water supply project.

Table 4: General Risks of PPP Projects

Ongoing projects / Under Development	General Issues/Lessons from projects
Road Construction Projects <i>Malir, Ghotki,</i>	• Lack of good quality feasibility studies with accurate estimates • Define and lock in baseline, cost, scope, timeline • Identify all E&S impacts

	• Define comprehensive Key Performance Indicators • Risk transference, need to transfer design, construction and maintenance risk completely • Identify all potential relief events • Land procurement needs to be completed in all respects along the ROW, all affectees need to be paid prior to start of construction • Detailed design completed and approved prior to start of construction • All tests completed before start of construction, • Financial Close achieved before start of construction • IA/IE fees paid through independent escrow • IA/IE approvals mandatory • No deemed approval for essential aspects such as detailed design, test, financial close, E&S safeguards • Change of Scope limited to ancillary activities not for scope necessities missed in the original baseline • Escalation on four major items initial 10% on concessionaire thereafter equally. • Ownership from the department and administrative arrangements on ground i.e. PD, PMiU, Land Revenue department etc. • Recurring monitor as-built drawings, conduct tests, and approved by IA/IE • Monitor schedule and cost variance and estimate cost at completion • The treatment of alternatives also varies; sometimes alternatives are not considered in any detail, other times alternatives are addressed early in the study and it is only the favored alternative which is taken forward for detailed study.
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	• comparisons of the order of costs for alternative schemes to select the most suitable scheme⁹ • It is essential that there is close cooperation between those undertaking environmental assessment, and those undertaking the other aspects of pre-feasibility and feasibility studies. • Civil works implementation schedule should be synchronized with the land acquisition and implementation of LARPs and construction works should only be allowed in sections where land acquisition is completed and implementation of LARP is confirmed. • Once a contract between owner and contractor has been executed, the construction drawings acquire the status of legal documents: They are instruments of the contract, as well as the focal point of the construction process. • Claims in construction contracts, are governed by FIDIC conditions, and may be raised on those FIDIC conditions. • Technical Requirements of project structuring, also requires a general layout plan that also shows the location of the project and a setting out plan, general arrangement of the major elements of the projects (e.g. structures), and detailed drawings. • General layout plan of a project should contain sufficient details of the Works such as <i>dimensions, levels and sections of the main items of the project, works sites, works areas, borrow areas, major traffic diversion schemes during construction, and a key plan showing the geographical location of the Works.</i> • design has to be correctly translated onto drawings, i.e. the details correspond with design assumptions, philosophies and calculations. • schematic design should be undertaken by taking into consideration of aspects, such as types of suitable geotechnical works, general layout, building configuration, road alignment etc., with a view to enhancing the cost-effectiveness. • Detailed drawings should include <i>reinforcement details, drainage details, utilities, etc.</i>
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⁹ <https://rds.eppingforestdc.gov.uk/documents/s75459/C-067%20Civic%20Offices%20Review%20BP%20VI.pdf>

	• The scale of the general layout plan should be appropriate to the nature and size of the works but generally 1:200, 1:500 or 1:1000 are preferred. • Standards of drawings for projects should conform to the requirements of the Computer-Aided-Drafting (CAD)' • good practice to document the design criteria in a design memorandum for future reference. • There is a need to avoid abortive work and delay to the project (designing) due to changes in site conditions, design requirements or other circumstances after completion of the preliminary design • Checking Engineer (IE) should be is given drawings of the Works as designed, the design memorandum, other information on functional/performance requirements and applicable design standards of the Works, but without the design calculations. The Checking Engineer (IE) should then verify the design as shown on drawings by executing an independent set of calculations.
Water Treatment/transmission project TP1	• Prioritization of projects essential • Define comprehensive Key Performance Indicators • Meet all E&S requirements • Consider Affordability and contingent liability • Land procurement should be completed prior to tender or engagement with private concessionaires • All approvals in place prior to commencement • Engage local contractors as much as possible • Maximum reliance on local equipment and content, • park offshore risk with onshore contractor, recover sites, no horizontal defenses or Extension of Time (EOT) • Avoid International Arbitration • Recurring monitor as-built drawings, conduct tests, and approved by IA/IE • Monitor schedule and cost variance and estimate cost at completion

Management Contracts Health, HMOs, EMOs, TTIs, RBCs	• Challenges of selecting credible consultants for feasibility studies of the proposed projects. • Challenges to meet defined deliverables, which require due diligence of required technical aspects and the KPIs to be monitored diligently. • Optimal service levels should be identified from the service levels requirement and resource levels available. E.g. the number of beds for former and number of donors for later in RBC project. • Lack of providing data/information for a timely and evidence-based baseline, which should be verified by the IE • Issues in complying the defined roles of stakeholders' consultation, especially at conceptualizing stage of a PPP project • Challenges in following the appropriate timelines/ schedule in pre-feasibility, feasibility, preparation, initiation and execution of the PPP projects as stipulated in PPP framework Lesson learned based on challenges faced previously • Follow competitive procurement process, avoid any instance of direct award and limit post project negotiations or amendments to project structure. • Complete any construction and/or supply works pending prior to tender • Complete all codal formalities of handing-over of primary and ancillary facilities prior to commencement • Ensure IE/IA know the scope of their work and follow diligently in terms of timely reports and approvals. • Allow concessionaire to do construction/refurbishment and maintenance and repair • Avoid in any delay in opening of escrow account and handing-over of facility • Empower Nodes/PMIU and provide adequate manpower, to enforce contracts. • Ensure bottlenecks to projects are removed in timely fashion.
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	• Fulfillment of CPs to be ensured timely and due diligently. • Avoid the practice of delay or deferment of fulfillment of CPs • Ensure every stakeholder to play its due diligent role in project, designing, preparation, execution and monitoring as ascribed in the PPP framework in compliance with Sindh PPP Act.
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2. PPP PORTFOLIO LEVEL IMPACTS

1. Size of PPP portfolio, relative budgetary position

Over the past 10 years Government Development space has been shrinking due to increasing non development outlay and weak revenues due to reliance on federal transfers which have ranged around 80% of the total revenues. The Development space on average has remained around 15% which doesn't account for PPP Projects as on average one project has featured in any fiscal year and of that PPP liabilities (outlays) are usually on accrual basis.

2. Affordability Analysis:

Affordability analysis is a key element, used to ensure that an individual / entity's fiscal obligations remain under budget and no untoward large burden surfaces later on in the project.

Methodology employed:

PSF employed the following methodology to conduct an Affordability Analysis:

1. Analysis of annual fiscal commitments, using a forecast budget limit approach on how overall budget limits will evolve and considers whether the estimated annual payments for projects could be accommodated.
2. Cumulative analysis of PPP projects within an Agency/Departmental Portfolio with their ADP allocations/projections.
3. Agency wise cumulative PPP outlays versus the Annual Development Plan of the Government of Sindh

3. Project Wise Cost Impact

Table 18: Estimated Projects Costs with Risk Estimates (All PPP Projects)

S.No	Projects in Operations (Post Debt Payoff)	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
1	Hyderabad MirpurKhas	2010	7,603,668,296	6,045,000,000	4,236,470,478	-	-	-	-
	Projects in Operations (Prior to Debt Payoff)	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
2	Jhirk Mulla Katiyar	2013	14,477,930,506	4,300,000,000	5,532,359,109	329,160,017	365,628,225	415,446,528	2,222,716,159
3	Karachi Thatta Dual Carrigeway	2015	28,807,798,408	8,856,298,066	15,930,972,000	1,834,326,411	1,581,701,581	1,114,095,572	6,216,216,271
4	Malir Expressway	2024	105,041,245,244	57,416,829,863	47,624,415,381	1,528,028,418	4,510,234,719	6,250,413,566	24,597,769,863
	Projects in Construction/Implementation	Inception Date	Total PV of Project Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF/EAC/PB Minutes	RVA	RCF	2024	2025	2026	Sum of RCF
5	Ghotki Kandhkot Bridge Project	2018	50,009,400,000	30,500,000,000	48,437,268,591	956,438,474	242,236,242	243,913,940	36,158,721,698
6	Link Road	2023	1,966,768,000	1,966,768,000	NA	NA	NA	NA	NA
7	Nabisar Vajihar	2022	276,753,695,951	69,100,000,000	207,653,695,951	4,755,125,160	6,844,874,840	24,963,523,742	121,308,887,926
8	Education Management Organisation	2016	10,696,449,044	NA	10,696,449,044	1,859,984,675	1,497,415,328	1,477,042,620	7,489,528,201
9	Teachers Training Institutes	2017	1,514,800,000	NA	1,514,800,000	110,494,157	67,557,855	68,600,884	445,088,666
10	NiCH Security and Safety Project	2013	544,600,000	NA	544,600,000	1,257,650,026	89,636,715	-	149,892,507
11	Health Management Organisations	2016	68,307,728,109	NA	68,307,728,109	2,096,189,819	2,281,179,349	2,395,694,318	5,675,196,895
12	Childrens Hospital North Karachi	2017	6,160,000,000	NA	6,160,000,000	857,098,981	942,808,879	1,037,089,766	1,714,197,961
13	Sindh Medical Support Program	2017	1,526,823,783	NA	1,526,823,783	-	-	-	-
14	Aman Ambulance	2017	1,873,390,892	NA	1,873,390,892	-	-	-	-
15	Regional Blood Centres	2019	15,260,000,000	NA	15,260,000,000	477,580,478	493,243,002	509,446,008	2,269,122,281
	Project Post Financial Close	Inception Date	Total PV of Project Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Project Post Tender FBC	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
	Projects Post Full Feasibility	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
16	JPMC Safety and Security Project	2024		379,580,419	2,021,688,692	-	240,797,804	295,226,800	1,480,858,480
17	NED Technology Park	2024	3,294,350,407	22,359,166,497	1,715,962,803	-	88,048,237	261,345,260	2,806,643,918
	Projects During Feasibility	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
18	TP 1	2024	105,518,917,010	39,579,834,758	90,823,487,642	8,039,378,083	16,078,756,166	14,429,411,308	71,035,825,088
19	TP 4	2024	106,852,169,707	196,337,412,759	230,005,060,249	-	27,787,500,000	14,962,500,000	142,605,661,926
20	S MIGD	2024	54,386,461,292	14,528,616,807	51,933,866,910	-	5,187,450,912	5,249,017,812	24,306,923,073
21	Malir Expressway Project PH 1	2025	207,379,204,381	83,979,480,000	123,399,724,381	-	4,138,287,440	4,361,712,560	38,209,100,854
22	Marble City	2024	14,633,627,941	10,528,947,000	-	-	-	8,087,414,564	14,633,627,941
23	Sukkur Water Distribution (USP)	2025	200,615,288,405	39,366,610,405	161,248,678,000	-	-	-	33,862,222,380
25	Yellow Line Project	2025	86,365,430,080	42,266,404,770	44,099,025,309	-	-	-	27,842,569,557
26	Rani Bagh	2024	-	6,273,853,183					
27	Shaheed Benazir Bhutto Park Project	2024							
28	Carbon Reduction Project - Carbon Credits	2024							
29	Management & Operation of Public Sector	2025							
30	Drug Rehabilitation Centres	2024	193,550,024		331,795,309		20,904,444	25,294,377	73,745,056
	Projects Prior to Feasibility	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	Actual	As Incurred	RVA	Sum of RCF
	Total PPP Portfolio Risk Adjusted Cost		1,296,108,586,695	631,818,034,528	1,069,170,319,850	22,005,264,880	70,177,082,388	83,751,495,306	559,429,319,807

Table 19: Estimated Projects Costs with Risk Estimates (PSF Approved Projects)

S.No	Projects in Operations (Post Debt Payoff)	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
	Projects in Operations (Prior to Debt Payoff)	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
	Projects in Construction/Implementation	Inception Date	Total PV of Project Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF/EAC/PB Minutes	RVA	RCF	2024	2025	2026	Sum of RCF
1	Education Management Organisation	2016	10,696,449,044	NA	10,696,449,044	1,859,984,675	1,497,415,328	1,477,042,620	7,489,528,201
2	Teachers Training Institutes	2017	1,514,800,000	NA	1,514,800,000	110,494,157	67,557,855	68,600,884	445,088,666
3	Regional Blood Centres	2019	15,260,000,000	NA	15,260,000,000	477,580,478	493,243,002	509,446,008	2,269,122,281
	Project Post Financial Close	Inception Date	Total PV of Project Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Project Post Tender FBC	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
	Projects Post Full Feasibility	Inception Date	Total PV of Cost	PV of Construction Cost	PV of O&M Cost	Prior Yr	Current Year	Next Year	Next 5 Years
	Adjustment		RCF	RVA	RCF	2024	2025	2026	Sum of RCF
4	JPMC Safety and Security Project	2024		379,580,419	2,021,688,692	-	240,797,804	295,226,800	1,480,858,480
	Total PPP Portfolio Risk Adjusted Cost		27,471,249,044	379,580,419	29,492,937,736	2,448,059,310	2,299,013,989	2,350,316,312	11,684,597,629

Table 20: Government Guarantees in PPP Projects under Implementation

Sr. No	Project Name	Project Description	Contract Term	Capital Struture	Guarantee Type	Date on Guarantee s were issued	Risk Coverage	Project Cost	Risk Coverage	Guarantee Amount/(Outstanding)
1	HMDC	58.7 Km Carrigeway	32 (2 Construction+ 30 O&M)	40% Debt, 30% Pvt Equity, 30% GoS (Sub Debt)	ntee Given/ No debt Out	NA	FR, DR, ES, COS, COR (TOR), OMR, TR	6,045,000,000	NA	NA
2	JMK	1.75 Km Bridge and 24.5 Km	27 (2 Construction+ 25 O&M)	75% Debt, 25% Equity (13% Pvt, 12% GoS)	ntee Given/ No debt Out	NA	FR, DR, ES, COS, COR (TOR), OMR, TR	4,300,000,000	NA	NA
3	KTDC	49.5 km dualized road	27 (2 Construction+ 25 O&M)	30% Equity (15.9% Pvt, 14% GoS)	Debt Repayment Guarant	12-Apr-16	FR, DR, ES, COS, COR (TOR), OMR, TR	8,856,298,066	3,189,883,169	720,000,000
4	GKBP	12.2 Km Bridge and 23.29 Km	32 (7 Construction+ 25 O&M)	70% Debt 30% Equity (16% Pvt, 14% GoS)	Project Finance Facility	28-Feb-25	FR, DR, ES, COS, COR (TOR), OMR, TR	30,500,000,000	17,000,000,000	8,500,000,000
5	Link Road	22.343 Km four-lane carriag	27 (2 Construction+ 25 O&M)	100% Pvt Equity	No Gurantee Given/ No c	NA	FR, DR, ES, COS, COR (TOR), OMR, TR	1,966,768,000	NA	NA
6	MEW P II	39.3 Km expressway	27.5 (2.25 Construction+ 25.25 O&M)	65% Commercial Debt, 35% Equity (20% Pvt, 15% GoS)	Debt Repayment Guarant	9-Mar-22	FR, DR, ES, COS, COR (TOR), OMR, TR	57,416,829,863	9,000,000,000	9,000,000,000
7	SNPC	2 X 50 MW Gas Power Plant	27 (2 Construction+ 25 O&M)	80% Debt, 20% Equity (10.2% Pvt, 9.8% GoS)	Collaterals / Lien (Cash +	4-Dec-23	FR, DR, ES, COS, COR (TOR), OMR, TR	12,417,160,000	7,453,530,079	7,453,530,079
8	NSV	Construction of pumping s	27 (2 Construction+ 25 O&M)	74% Debt, 26% Equity (Foreign Equity USD15mn, Mez. Debt USD10mn, Sub.Sukuk Rs 2bn)	Debit Authority From Ac	22-Dec-23	FR, DR, ES, COS, COR (TOR), OMR, TR	69,100,000,000	27,350,000,000	27,350,000,000
9	Marble City	Industrial estate for Marble	12 (2 Construction+ 10 O&M)	85% Customer Advances, 15% Equity (100% Pvt)	NA	NA	FR, DR, ES, COS, COR (TOR), OMR, TR	10,529,000,000	NA	NA
10	EMO Schools	81 SBEP Construction scho	10 Years (O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	17,530,271,590	NA	NA
11	TTIC Hussainabad	Improve the functioning of	11 Years (10M Installation 10Y O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	1,082,000,000	NA	NA
12	2 TTIS	Improve the functioning of	10 Years (O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	1,082,286,957	NA	NA
13	JICA Schools	Outsourcing of 19 public se	10 Years (O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	1,257,650,026	NA	NA
14	NICH	Fool proof security and fire	5 Years (O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	389,000,000	NA	NA
15	DHQ Badin	High quality of service deliv	10 Years (O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	1,700,000,000	NA	NA
16	CHNK	High quality service delivery at 129 bedded facility	10 Years (O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	4,400,000,000	NA	NA
17	RBCs	4 state of the art Regional	10 Years (O&M)	NA	No Gurantee Given/ No c	NA	OMR, COR (TOR), TR	10,900,000,000	NA	NA
								220,825,614,476	63,993,413,248	53,023,530,079

FR
DR
ES
COS

Financing Risk
Demand Risk
Escalation Risk
Change of Scope

COR (TOR)
OMR
TR

Cost Overrun (Time Overrun)
O&M Risk
Termination Risk

Table 21: Government Guarantees in PPP Projects completed

Sr. No	Project Name	Project Description	PPP Model	Contract Term	Project Cost	Capital Struture	Guarantee Type	Date on Guarantees were issued	Risk Coverage	Risk Coverage	Guarantee Amount/(Outstanding)
1	HMOs RHCs and THQs	61 RHCs, 3 THQs in Various Districts	O&M	Completed	191,381,100	No debt, No Equity	NA	NA	NA	NA	NA
2	HMOs DHQ, RHCs, BHUs	DHQ Khairpur, 3 RHCs, 29 BHUs Bin Qasim, Gadap Town	O&M	Completed	234,388,132	No debt, No Equity	NA	NA	NA	NA	NA
3	HMOs DHQ, RHCs, BHUs	1 DHQ Thatta, 8 RHCs, 4 THQs Thatta and Sujawal	O&M	Completed	826,000,000	No debt, No Equity	NA	NA	NA	NA	NA
4	Sindh Ambulance Service	30 Ambulance in District Thatta and Sujawal.	O&M	Completed	1,873,390,892	No debt, No Equity	NA	NA	NA	NA	NA
5	SMSP	medical/surgical supplies and consumables, maternal and new born child health initiative, primary health care referrals initiative, etc.	O&M	Completed	1,526,823,783	No debt, No Equity	NA	NA	NA	NA	NA
					4,651,983,907		-			-	-

Table 22: Capital Structure/Guarantees in planned projects

S.No	Project Name	Line Department	Project Cost	Capital Structure
Education Sector				
1	Non Formal Education	School Education and Literacy Department	NA	Under Development
2	Management & Operation of Public Sector Schools - MC	School Education and Literacy Department	NA	Under Development
Health Sector				
3	JPMC Security and Safety	Health Department	NA	Under Development
Transport Sector				
4	Yellow Line Project	Transport & Mass Transit Department	NA	Under Development
Water and Irrigation Sector				
5	TP1	Local Government & HTP Department	NA	Under Development
6	TP4	Local Government & HTP Department	NA	Under Development
7	5MGD Desalination project	Local Government & HTP Department	NA	Under Development
8	Sukkur Water Distribution (USP)	Local Government & HTP Department	NA	Under Development
Industrial, Tech and Economic Zones and Ports				
9	NED Park	NED University	NA	NA
Parks and Recreation Sector				
10	Rani Baagh Development Project	Local Government & HTP Department	NA	Under Development
11	Shaheed Benazir Bhutto Park Project	Local Government & HTP Department	NA	Under Development
Forestation and Green Financing (Carbon Credits) Sector				
12	Carbon Reduction Project - Carbon Credits	Forest Department	NA	Under Development

3. WORK DONE IN THE QUARTER ENDED DECEMBER 2024

Table 23: List of Tasks Performed during the quarter

Project/Miscellaneous - Linked Activities		Date of communication if any	Document if any	Value Added
Marble City				1. raised requirement of legal opinion on marble city land acquisition 2. longstop date for CPs and project should be defined 3. contract covered delay in achieving commencement on account of SEZMC/GoS but not due to private party. 4. environmental study should address, buffer zone for wetland, convention on Migratory Species of Wild Animal and Central Asian Flyway (CAF), 5. Emphasised the need for strong KPIs, shared UNIDOs KPIs 6. Advisory consortium should be given TORs that shortcomings in marketing plan will be overcome. 7. Include in contractual requirements that no allottees should be allowed to transfer their plots until the execution of the Final Sales Deed. 8. responsibility of project cost and cost overruns was on concessionaire as GoS took on this risk there is need for major revision 9. first sale should be launched prior to initial preliminary work/construction period.
	Work on MCK PAR, cost comparisons, KPIs, clarifications sought from SEZMC	1st October 2024 onward	Email, word files, queries	
	Highlighted the risks pertaining to land transfer matter of MCK, Review of FORM II.	14th October 2024	Queries document	
	Addressing queries of ADB	17th October 2024	PAR	
	Consultancy TORs for EIA shared	29th October 2024	Consultancy TORs document	
	Timelines made for compliance with E&S safeguards	18th November 2024	Timelines Document	
	Updated Risk Matrix for Marble City Shared as per requirements of IFRM	18th December 2024	Risk Matrix (Excel File)	
RBC Jamshoro				1. Environment Audit report approval from ADB
	Env. Audit Report, review of IE reports, research on RBC mechanisms, submission to ADB	October 9, 2024	EAR, IE Report	

	Ongoing work on Compliance and Impact (follow up board query)	25th October 2024	Audit Report of RBC Jamshoro	
RBC Sukkur				
	RBC Sukkur PAR reviewed, and calculations shared	29th November - 31st December 2024	RBC Sukkur PAR	
	Communication for sharing RBC categorisation checklists with ADB	28th November 2024	E&S Checklists	
Yellow Line				
	Breakeven of yellow line calculated	21st November 2024	Yellow Line Presentation /excel file	1. CV studies for WTP, uptake, estimate generalized travel costs and vehicle operating costs 2. Stressed that area for bus depots is properly designed and acquired, we estimated at least 14 acres would be required. 3. Calculated breakeven fare rate for bus service, and coverage requirements (kms) from the BRT station for planning purposes. 4. Identified USD 100 per CO2 is acceptable threshold for cost efficiency and both electric and hybrid buses are much higher than this. 5. examples of financing of buses e.g. electricity utility finances operator, sell or provide the energy free of charge in exchange for equity
	Yellow line Financial Model Comments	10th December 2024	Financial Model	
5 MGD Project				
	ADB funded projects requirements shared with PPPU, E&S checklists shared	18th November 2024	Document on ADB requirement	1. Project site must be close to the sea not in a bay or estuary otherwise brine steam may not disburse 2. The importance of project location for intake of water and supply of electricity being economically efficient 3. site location suitability in context of marine environment is breeding ground for aquatic animals and rare sea grasses. 4. Worked out tariff, costing for project operations and benchmark costs for projects
	REA and IR&IP Categorizations checklists were finalized and shared with ADB	19th December 2024	E&S Checklists	

TP1				1. identified viability threats due to IWS, resulting in virtual annuity and idling risk, capacity payments when no demand.
	Reviewed options for TP-1, scope of project. Tariff workings for the various options	9th December 2024	Options for TP-1 document	2. No need for R.O due to inhouse capacities, for those requiring such treatments and TDS sufficient for Industrial grade water without R.O
Ranibagh Feasibility Study				1. To seek, relevant approvals for Ranibagh project, checked if PSF identified issues/comments had been addressed
	Ranibagh Legal/Financial Regulatory and financial analysis missing	14th October 2024	Ranibagh Feasibility Studies	
Audit Report Findings EMOs				
	Meeting with AASA addressed paras of audit reports	7th November 2024	Paras Document and Supporting Docs.	1. Assessment of fulfilment of administrative requirements in EMOs
GRM establishment at SELD Node				
	Communicated with PPP Node SELD for the establishment of GRM for EMOs	27th November 2024	letter to senior director PPP Node	1. GRM with appropriate staffing needed to handle stake holder issues

4. SOME RISK CONCEPTS OUTLINE

Environmental Safeguards

The following is a summary of certain key requirements according to International Financial Institutions (IFI) standards, environmental laws requirements domestically. This write-up focuses on important requirements of environmental safeguards against environmental impacts of projects. It focuses attention on important areas pertaining to consultations, consideration of alternatives, and incorporating environmental elements in the design of the project. It outlines disclosure and reporting requirements in preparing documentation for environmental impacts.

Each PPP project needs to be scrutinized as to its type, location, scale and sensitivity and the magnitude of its potential environmental impacts. For clarification, *environmental impacts include those related to the; 1.) natural environment (air, water, and land), 2.) human health and safety, and 3.) transboundary and global environmental aspects.*

Environmental safeguards, policies and requirements, seek to *avoid, minimize, or mitigate adverse environmental impacts.* The management tools for conducting a robust environmental assessment may include developing *project impact evaluation matrices and plans such as: 1.) climate risk assessment, 2.) biodiversity action plan, 3) cultural heritage management plan, 4.) labor management plan, 5.) community health and safety plan, 6.) stakeholder engagement plan, 7.) land acquisition plan, 8.) livelihood restoration plan; 9.) Indigenous Peoples plan, and other plans.*

Biodiversity Conservation and Natural Resource Management

This area relates to the importance of protection, conservation and sustainable management of biodiversity and living natural resources and the importance of maintaining the benefits from ecosystem services. Biodiversity is the variety of life on earth, including **all plants, animals, microorganisms, and their genes. It also includes the ecosystems they live in.** In terms of ecosystem services, biodiversity supports **healthy communities** by providing clean air, fresh water, and food security. It also includes **climate regulation** as forests absorb carbon dioxide, which helps to regulate the climate; and it promotes genetic diversity. within species which protects them from extinction due to disease or natural disasters.

Community Health, Safety and Security

This involves an understanding that there may be **ecosystem services¹⁰ that may result in adverse health and safety risks and impacts to affected communities** due to the PPP project's direct impacts.

Pollution Prevention and Abatement and Climate Change

¹⁰ Ecosystem services are the benefits that people get from nature, including clean air, food, and recreation. They are provided by the functions of ecosystems, such as pollination and nutrient cycling.

This area focuses on the importance of **addressing pollution** by prevention and management of impacts arising from PPP project activities

Consultation, Communication and Information Disclosure.

There is a need to realize the importance of gender inclusive and **gender responsive stakeholder consultations** and disclosure of environment and social safeguard documents prepared by Agencies,

Social Inclusion, Gender Equality and Equity

Recognizes the need to protect women against discrimination that could **limit equal opportunity** by taking steps towards monitoring men and women participation in, decision-making and in accessing benefits.

Labor and Working Conditions

Recognizes the need to address issues of *child labor, forced labor, migrant workers*, workers engaged by third parties, and workers in the concessionaire's supply chain;

Importance of a good design and consideration of project alternatives

Government of Pakistan, Guidelines for the Preparation and Review of Environmental Reports, November 1997 state the relationship between environmental assessment and good design as a **good design practice will include careful consideration of environmental issues.**

It may be asked why environmental assessment is necessary beyond good design. Experience in both industrialized and developing countries shows that there are **two systematic difficulties in ensuring good design practice.** The first of these lies in the **lack of interest**, and consideration during the planning and design process, shown by many project proponents in the possible effect of proposals on environmental resources. The second results from **differences in design assumptions on impacts, and the actual outcomes when the project goes into operation.** Environmental assessment should address both these difficulties. There is a need to ensure that design-build proposers do not assume an unnecessary amount of risk in the event the SEPA process results in a significant change in the proposal. By doing this the amount payable by the contracting agency to the design-builder would **not include significant contingency** as the result of risk placed on the design-builder associated with significant changes in the project definition arising out of the SEPA process.

The guideline also underline the need integrated environmental assessment; When significant impacts are identified in a proposal, a range of questions arise as to the best way to minimize the adverse effects—can the project objectives be achieved in a different way, should an alternative site be chosen, is the technology appropriate, and are prudent mitigating measures incorporated? The treatment of alternatives also varies; sometimes alternatives are not considered in any detail,

other times alternatives are addressed early in the study and it is **only the favored alternative which is taken forward for detailed study**. It is essential that there is **close cooperation** between those undertaking environmental assessment, and those undertaking the other aspects of pre-feasibility and feasibility studies. The cooperation needs to be continuous, to allow for continuous project modification in response to environmental issues, and to ensure that the environmental assessment continues to proceed on the basis of the emerging design concept for the project. In many cases, the cooperation will be facilitated when the various components of the feasibility study are undertaken in an integrated manner. Where this is not possible, then the activities should proceed in parallel.

No construction without environmental studies submissions and approvals

Pakistan Environmental Protection Act (PEPA), 1997, states that **No proponent of a project shall commence construction or operation** unless he has filed with the Federal Agency an initial environmental examination or, where the project is likely to cause an adverse environmental effect, an environmental impact assessment, and has obtained from the Federal Agency approval in respect thereof.

After the 18th Constitutional Amendment in 2010, environment as a subject has been fully devolved to the provinces; hence making the environmental legislation a provincial responsibility. Accordingly, the GoS has enacted the Sindh Environmental Protection Act, 2014 (the Act) on the 20th of March 2014 and notified the rules and regulations for environmental assessment and management in the province. The **regulations should be read in conjunction with the guidelines issued by the Pakistan Environmental Protection Agency** for preparation and review of environmental reports, public consultation, and undertaking projects in sensitive and critical areas

The GoS has also notified the Sindh Environmental Quality Standards (SEQS) on the 28th of January 2016. Section 17(1) of the Act requires that **no project proponent shall commence construction or operation unless he has filed an initial environmental examination or environmental impact assessment, and has obtained from SEPA, approval in respect thereof**. SEPA may require that the environmental impact assessment be re-submitted after such modifications as may be stipulated or decline approval of the environmental impact assessment as being contrary to environmental objectives.

The Act also sets a period of two months for SEPA to review and approve (or otherwise) the initial environmental examination, and a period of four months for an environment impact assessment (from the date that the environment impact assessment is filed complete in all respects in accordance with the regulations). The Regulations also set a deadline of 30 days in case of an EC. The construction work will not commence until completion of all the steps however if a project design and/or implementation plan stipulates sectional / segmental construction, the construction

may proceed subject to approval and clearance from the SEPA w.r.t. to the relevant section / segment.

It may be noted that **the EIA submitted to SEPA and the Financing Source will be the same version**, and that any updated thereto will accordingly be communicated to both SEPA and Financing Source. As per Financing Sources' policy, project construction activities will not commence (or be allowed by the Financing Source) until the disclosure requirements are fulfilled.

There is a need to ensure that the civil works implementation schedule is synchronized with the land acquisition and implementation of LARPs and **construction works will only be allowed in sections where land acquisition is completed and implementation of LARP is confirmed**. The sections with on-going land acquisition and LARP implementation will not be allowed and opened for construction until LARP implementation is achieved

Disclosure requirements to prevent bias

Pakistan Environmental Protection Act (PEPA), 1997, states requirement for maintaining separate Registers for initial environmental examination and environmental impact assessment projects, which shall contain brief particulars of each project and a summary of decisions taken thereon, and which shall be **open to inspection by the public at all reasonable hours**.

The PPP Act requires the Line Department to include an initial environmental examination, environmental impact assessment in line with industry international best practices if required, when preparing a feasibility for a proposed PPP project. Since project feasibility is based on preliminary design, therefore, it is understood that the IEE or EIA studies would also be developed on the basis of preliminary design, at the transaction advisory stage of the project cycle.

Preliminary design includes all that is necessary to conduct a SEPA alternatives analysis and review process properly, Preliminary design includes, but is not limited to, preliminary engineering and other activities and analyses, **Stakeholder coordination and consultation meetings should be held to assist with the optimization and finalization of the preliminary design**.

The PPP Act also requires environmental and safety requirements to be mentioned in the draft PPP Agreement as part of the bid documents at the bidding stage

GoP Guidelines for the Preparation and Review further state about making environmental assessment credible because matter who prepares the Environmental report, some bias will exist; and **bias is not restricted to proponents, nor to Agencies and Departments**, but will be present in every NGO or community member who contributes or comments on an Environmental Report. **Full public involvement provides a counterbalance to bias**, and some further measures will also assist in making the environmental assessment process transparent, accessible and accountable to the public. These measures include: 1.) a requirement for the proponent to register

all consultants' names and their terms of reference with the Responsible Authority 2.) the listing of all consultants, their expertise and responsibilities and publishing the terms of reference in the environmental report; 3.) making all environmental reports available to the public; 4.) publishing lists of decisions—including the requirement for an EIA and the final outcome of environmental approval— along with the public availability of any recommendations for mitigation and impact management plans. The purpose of aforementioned requirements is to ensure that there is an objective environmental safeguards assessment, that so that **public officials and citizens have the necessary environmental impact information for actions before actions are taken**. The PPP Policy of 2012 emphasizes the need for providing information to the public about the obligations of the private sector and the Government;

In respect of the main features of an Environmental Report it is required that a general description of the format and content of an Environmental Report follows, the structure of investigations will sometimes lead to a logical presentation which varies from the general model; the treatment of baseline data, The general format may need to be varied to accommodate specific Terms of Reference (TORs) which may have been adopted. While the general model allows for a description of expected conditions in an early section of the Report, it is not uncommon for the existing conditions to be described under the relevant impact heading (e.g. under noise impacts, the existing noise environment would be described, followed by predictions of the noise levels expected to be generated by the favored proposal.

Funding for E&S safeguard requirements

Government support approved by the Board for a project may include any of the following: *administrative support to the private party in obtaining licenses and clearances for the purposes of the project on such terms and conditions as may be prescribed; provision of utility connections for power, gas and water at project site; acquisition of land or rights of way necessary for the project; rehabilitation and resettlement of displaced persons directly required to execute the project; and any other administrative responsibility*; PPP Act requires requests for government support described shall be an **integral part of the project proposals** submitted by the Agencies , after approval of the Board, the Unit is required to make necessary arrangements for **including such support in the budget**. The Unit shall review and analyze all requests for government support with budgetary implications and shall evaluate the justification and eligibility for such support and the fiscal impact of the related direct and contingent liabilities. Based on this review and analysis, the Unit shall make commendation to the Board for approval, rejection or reconsideration of the requested support. All of the **government support for the project shall be clearly indicated in the bidding documents and included in the Public-Private Partnership Agreement**.

In carrying out the risk management function, there is a need to ensure the **inclusion of approved government support in the Government's Annual Development Program**

Following the Sindh PPP Law (2010), the Sindh province approved and announced its policy for Public-Private Partnership in 2012. The policy requires the Government of Sindh to consider environmental viability as one of the key considerations for providing government support. The Policy puts forward the following objectives: Ensuring sustainable long-term funding for infrastructure development through mobilization of private investments; Sustainability an approach to business that balances the environmental, social, economic aspects of project-based working to meet the current needs of stakeholders without compromising or overburdening future generations. The policy requirements state the need for **ensuring financial sustainability of infrastructure services through full cost recovery through affordable user charges and tariff structure supplemented by viability gap funding (VGF)**, if necessary. The policy presents a framework for PPP projects which requires **incorporation of social and environmental safeguard provisions into the proposals to enhance their bankability and protecting the best interests of all stakeholders including end users, the government and the private sector**. The Policy also places great significance on safeguarding public interest and consumer rights by ensuring uninterrupted public access to essential infrastructure and providing adequate and equal protection of end users' rights to privacy, regardless of their ethnicity, gender, age, occupation, and civil, social and economic status; It also focuses upon public health and safety and protecting the environment.

Underlining the need to comply with the environmental safeguards, it also puts forward 'ensuring **environmental sustainability of PPP projects**' as one of the project preparation objectives. The policy requires that PPP projects be thoroughly prepared before the selection of private sector partners by undertaking feasibility studies that include environmental, social, and gender analyses, acquiring the necessary land, and obtaining the necessary permits and approvals.

It states there is ample evidence that **shifting the responsibility for these preparatory activities to the private sector** results in *(i) land speculation; (ii) weak competition as each bidder has to prepare its own feasibility study; (iii) high bid prices as bidders include significant risk margins; and (iv) major delays in contract negotiations and financial closure, or even inability to achieve it, as there are too many uncertainties and issues left open in the tender documents.*

Due Diligence

All concession agreements for PPP projects financed through the New VGF will contain adequate social protection covenants requiring, among other things, that concessionaires / private parties *comply with: all applicable laws and regulations of Pakistan; the Financing Sources' environmental and social safeguard policies e.g. ADB's SPS; core labor standards and the applicable laws and regulations of Pakistan, including, but not limited to, the requirements relating to workplace occupational safety norms; no use of child labor; no discrimination against workers in respect of employment and occupation; no use of forced labor. The workers engaged by the Concessionaires / private parties for the PPP projects are not restricted from developing legally permissible means of*

expressing their grievances and protecting their rights regarding conditions and terms of employment.

Procedures for Environmental and Social Assessment of PPP Projects (Project Preparation Phase)

Key environmental features in project area identified during inception/scoping stage based on **desk study of engineering investigations, reconnaissance survey and initial stakeholder consultations**. GPS coordinates for sites should be provided to help the prospective bidders to conduct their desktop evaluation of the sites and nearby areas w.r.t environment / biodiversity and supplement it with additional studies such as Critical Habitat Assessments.

For a project with high resource demands, the government has to undertake an early stage best available technologies (BAT) study, benchmarking the project against relevant global comparators and conduct as applicable **water balance studies or mathematical modelling** as part of project development and design. Integrated Biodiversity Assessment Tool (IBAT) assessments evaluate *biodiversity risks and opportunities using data from the IUCN Red List, World Database of Protected Areas, and World Database of Key Biodiversity Areas*. IBAT is a subscription-based service that provides access to these dataset. A water balance assessment is estimated for **each catchment to understand surface water and groundwater split**. The assessment consists of a calculation that accounts for all significant inputs and outputs of water to and from the surface water and groundwater systems and any interactions between them.

Tender documentation including **detailed schedule of quantities**, tender procedures, and conditions of contract; could be prepared at the preliminary design stage, should project delivery schedules require an early start to construction. These will indicate construction activities, critical path analysis, interface with associated contracts and an overall construction cost estimate. Construction and environmental insurance and risk gap coverage should be required such as Builders Risk Insurance and Environmental Liability Insurance .

Procedures for Environmental Management and Compliance during Project Implementation

During the PPP project implementation phase, there is a need to ensure the implementation through environmental and social monitoring on a regular basis by engaging a qualified E&S consultancy firm/individual to ensure the implementation of the EMP and LARP in true letter and spirit to ensure compliance.

Final design means any design activities following preliminary design, in this phase **changes to the preliminary design layout should be minimized**, as this could **result in time delays and could impact other elements of the design**. Detailed Design expressly includes the preparation of **construction plans** and detailed specifications for construction work to be performed. In detailed design (set of **construction drawings**) of each element of the preliminary design needs to be undertaken to ensure that all design procedures have been undertaken, **design calculations**

completed and documented, and any design approvals have been sought with utility and other relevant authorities.

The PPP Agreement must include appropriate provisions preventing the concessionaire from proceeding with final design activities and physical construction prior to the completion of the SEPA process (**contract hold points or another method of issuing multi-step approvals** must be used); A "contract hold point" refers to a specific stage in a construction project where work must stop and cannot proceed further until a designated authority, like an engineer or inspector, verifies that **certain quality standards or critical aspects of the work have been met and releases the hold**, essentially acting as a mandatory checkpoint to ensure project compliance with the contract specifications before moving on to the next phase. The PPP contract must include appropriate provisions ensuring that all environmental and mitigation measures identified in the environmental document will be implemented; The design-builder must not prepare the SEPA document or have any decision making responsibility with respect to the SEPA process..

Sindh EPA and ADB SPS Requirements

Sindh EPA Review of IEE & EIA Regulations, 2014, require public participation in the case of an EIA, the Agency shall simultaneously with issue of confirmation of completeness cause to be published in any English or Urdu national newspaper and in a local newspaper of general circulation in the area affected by the project, a **public notice** mentioning the type of project, its exact location, the name and address of the proponent and the places at which the EIA of the project can , be accessed. The notice issued shall fix a date, time and place of public hearing for any comments on the project or its EIA. The date fixed shall not be earlier than fifteen days from the date of publication of the notice. The Agency shall also ensure the **circulation** of the EIA to the concerned government agencies and solicit their comments thereon. **All comments** received by the Agency from the public or any Government Agency **shall be collated, tabulated and duly considered by it before decision on the EIA**. The Agency may issue guidelines indicating the basic techniques and measures to be adopted to ensure effective public consultation, involvement and participation in EIA assessment.

Every approval of an IEE or EIA or check list shall, in addition to such conditions as may be imposed by the Agency, be subject to the condition that the project shall be designed and constructed, and mitigatory and other measures adopted, **strictly in accordance with the IEE or EIA or environmental check list**, unless any variations there to have been specified in the approval by the Agency.

Where the Agency accords its approval subject to certain conditions, the proponent shall(a) before commencing construction of the project, **acknowledge acceptance of the stipulated conditions by executing an undertaking in the form prescribed**, before commencing operation of the project, obtain from the Agency written confirmation that the conditions of approval, and the

requirements in the IEE or EIA or environmental check list relating to design and construction, adoption of migratory and other measures have been duly complied with.

The environmental management plan (EMP) will include the *proposed mitigation measures, environmental monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures, definition of thresholds that will signal the need for corrective actions related institutional arrangements, capacity development/training measures, cost estimates, budgets implementation schedule, performance indicators and document the progress and results of mitigation*. If some residual impacts are likely to remain significant after mitigation, the EMP will also include appropriate **compensatory measures (offset)** that aim to ensure that the project does not cause significant net degradation to the environment. Such measures may relate, for instance, to conservation of habitat and biodiversity, preservation of ambient conditions, and greenhouse gas emissions. Monetary compensation in lieu of offset is acceptable in exceptional circumstances, provided that the compensation is used to provide environmental benefits of the same nature and is commensurate with the project's residual impact.

Where unanticipated environmental impacts become apparent during project implementation, the borrower/client will update the environmental assessment and EMP or prepare a new environmental assessment and EMP to assess the potential impacts, evaluate the alternatives, and outline mitigation measures and resources to address those impacts.

The draft environmental assessment (including the EMP) is to be disclosed in a timely manner, before project appraisal, in an **accessible place and in a form and language(s) understandable to affected people and other stakeholders**. For illiterate people, other suitable communication methods will be used. Subsequently the final environmental assessment, and its updates if any, are disclosed to affected people and other stakeholders. Thereafter the requirements are to implement the EMP and monitor its effectiveness through prepare periodic monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions, if any. Once the project implementation starts, monitoring of EMP implementation will start according to the monitoring plan given within the EMP.

Background on design process

Typically with the progress of the project along its life cycle, the **cost estimate accuracy improves from order of magnitude (40) to preliminary (25%) to definitive (10%)**. The design phase presumes that all feasible alternatives have been considered, and a single project has been identified which meets the economic, financial and environmental criteria established. Design omissions and errors can be very costly both in time and economics once a contractor has been appointed to undertake the construction. A significant number of variations can increase the overall cost of the project to beyond the project budget.

As such preliminary design is an important key to time-effectiveness, cost-effectiveness, and environmental responsibility. Preliminary design includes all is necessary to conduct SEPA alternatives analysis & review process properly, it includes the *general estimates of the types and quantities of materials, and other work needed to establish parameters for the final design, It should include, quantity estimates, topographic surveys, geotechnical investigations, hydrologic analysis, hydraulic analysis, utility engineering, soil borings, ditch designs, of removal items, noise wall justifications, retaining wall design, noise wall design, environmental assessments, environmental justice analyses; hazardous materials assessments. financial plans, revenue estimates,*

Preliminary design specifics include metes and bounds surveys , existing property lines, title and deed research, structural design (substructure and superstructure), temporary structure requirements, design exceptions, development of typical sections, cross sections with flow line elevations, grading plans, geometric alignment (horizontal alignment, vertical alignment and any clearances necessary to meet approved design criteria), pavement details/elevation tables, to be maintained during construction.

Final design – Specifics

Detailed Design expressly includes the preparation of construction plans and detailed specifications for construction work to be performed. set of construction drawings of each element of the preliminary design needs to be undertaken to ensure

Issuance of RFQ and RFP – prior to conclusion of SEPA Process

Tender documentation including detailed schedule of quantities, tender procedures, and conditions of contract; could be prepared at the preliminary design stage, should project delivery schedules require an early start to construction. These will indicate construction activities, critical path analysis, interface with associated contracts and an overall construction cost estimate.

The contracting agency may: Issue an RFQ or issue an RFP prior to the conclusion of the NEPA process as long as the RFP informs proposers of the general status of the SEPA process including the no-build alternative.

Contract Provisions for contract award prior to SEPA decision

For design-build projects, a contract may be awarded prior to the SEPA decision. However the contract should clearly state that no commitment is being made to any alternatives under consideration in the NEPA process, that all alternatives will be fairly considered. The design-build contract must include appropriate provisions ensuring that all environmental and mitigation measures identified in the SEPA document will be implemented; The design-build contract must include appropriate provisions preventing the design-builder from proceeding with final design activities and physical construction prior to the completion of the NEPA process (contract hold points or another method of issuing multi-step approvals must be used).

Social Safeguards

The following is a summary of certain key requirements according to International Financial Institutions (IFI) standards, and land acquisition and social safeguard law's requirements domestically. This write-up focuses on important steps in land acquisition which evolve sequentially. It focuses attention on important areas pertaining resettlement planning, consultations, consideration of alternatives, and incorporating social elements in the design of the project. It outlines disclosure and reporting requirements in preparing documentation for social impacts.

All proposals will undergo social safeguards screening and categorization process at project inception stage. All displaced persons are informed of their **entitlements and resettlement options**. It involves a comprehensive assessment of social impacts, involving census of all displaced persons, and an inventory of their lost assets; For this purpose, normally a **cut-off date** will be established by the host government procedures. Information regarding the cut-off date will be documented and disseminated throughout the project area.

The **scope of resettlement planning** is determined through a **social impacts assessment survey (with appropriate socioeconomic baseline data)** and **census of displaced persons**, with an assessment of lost assets and livelihood resources **and a gender analysis, specifically related to resettlement impacts and risks**. **Census of DPs and inventory of losses** will constitute a baseline for monitoring of LARP implementation progress.

Socio economic survey involves **focus groups discussion and elicitation through survey/survey-based instruments**. Socio-economic survey of a sample of at least 25 percent of displaced persons; and detailed measurement survey (i.e. exact description and quantification of all lost assets by qualified appraisal experts), and valuation of all lost assets as well as an assessment of lost incomes will be carried out. For the purposes of valuation of assets Pakistan Banking Association (PBA) enlisted Professional Valuers for assessment of value of assets located in Pakistan may be used. An eligibility cut-off date will be declared and formalized when the social impacts assessment survey and census of DPs are completed

Information Disclosure and Grievance Redressal Procedure

It will be required by each PPP Node to establish **project-based GRM for speedy and amicable resolution of community concerns and grievances** about environmental and social management (Land Acquisition and Resettlement) issues, The PPP Node based GRM will maintain records of the following: *Complaints, grievances, or protests received from local communities*, **recording dates and organizations** involved, actions taken to resolve grievances, any outstanding issues, proposed

measures for resolution; Details of **information disclosure and consultations**, if any, with affected people, local communities, civil society groups, and other stakeholders; Details of **approach/methodology** on addressing the concerns and issues raised at consultations.

Due Diligence Modality for Existing Facilities

In such instances where the Financing Source's funds are desired for PPP projects that either already exist or are under construction, the relevant PPP Node / PMU will be required to conduct, and submit to the PSF, an environment and / or social compliance audit, including on-site assessment, to identify past or present concerns related to impacts on the environment, involuntary resettlement and Indigenous peoples.

The purpose of the aforementioned due diligence / compliance audit shall be to determine whether actions were in *accordance with the respective Financing Source's (eg. ADB) safeguard principles and requirements*, so as to identify and plan any appropriate measures to address outstanding compliance issues. Where a non-compliance shall be identified, a Corrective Action Plan shall be prepared by the Node and agreed upon by the PPP Unit and PSF and the respective Financing Source. The corrective action plan (CAP) will define: necessary **remedial actions**, the **budget** for such actions, and the **time frame for resolution** of any non-compliance(s).

Land Acquisition Process:

The agency and project implementation consultant will work closely with the design engineers to minimize LAR impacts as much as technically feasible, and document such efforts in the LARP. In cooperation with the concerned land administration officials, they will also prepare measurement surveys, socio-economic assessment and perform consultations with APs. The land acquisition process officially starts with the publication of preliminary notification under Section 4 of the LAA. This is followed with the **conducting of surveys, measurements, valuation, inquiry on objections, formal declaration of intent to acquire land, dispute resolution, payment of compensation and taking possession of the acquired land**.

PSF endorsed final LARPs/IPPs for all Category A projects will also be reviewed, accepted and disclosed by the Financing Source (e.g. ADB) **prior to issuance of commencement certificate**. The valuation method for determining replacement cost should be documented and included in relevant resettlement planning document. It is Applicable to all structures located on affected area at cut-off dates. Compensation will be paid prior to dismantling and removal of the structures as per civil works requirements.

Replacement cost refers to the method of valuation that help determine the amount sufficient to replace lost assets and cover transaction costs. For land, replacement cost is referred to pre-project value of the land of similar type/quality, plus transaction costs (e.g., administration charges, title or registration fees etc.). interest accrued, transitional and restoration costs; and other applicable

payments, if any. Qualified and experienced experts will undertake the valuation of acquired assets. In applying this method of valuation, depreciation of structures and assets should not be taken into account. Replacement cost, based on C&W rates, must reflect current material costs, labor etc.; the valuation report by structure types to be annexed in the resettlement planning document.

Land administration officials are to be requested to provide existing records for the DPs and lost assets. Based on these records agency/PPP Node and project implementation consultant, undertake census and inventory of lost assets, in consultation with DPs at each affected property **LAR impact maps** showing the alignment of project facilities will be prepared.

Section 4: involves publication of *preliminary notification* in the *official Gazette* by the *Collector of the District*, and he shall cause public notice of such notification to be given at convenient places in the locality. Sec 4 grants the *power for conducting survey* i.e. to *enter upon and survey and take levels of any land* in such locality; to *set boundaries of the land* proposed to be taken and *intended line of the work* proposed to be made thereon; Based on **cadastral maps**, boundaries of properties so the affected land and structures can be identified and thereon **mark such levels, boundaries and lines** by **placing marks and cutting trenches**; PPP Nodes are required to ensure project location including boundaries of land required for project and/or ROW alignment (for linear projects) is marked.

No person shall enter into any building or upon any enclosed court or garden attached to a dwelling-house (unless with the consent of the occupier thereof) without previously *giving such occupier at least seven days' notice in writing* of his intention to do so. The officer so authorized at the time of entry shall for all necessary **damage** to be done as aforesaid, and, in case of dispute as to the sufficiency of the amount so paid or tendered, he shall refer the **dispute** to the *decision of the collector or other chief revenue officer* of the District, and such decision shall be final.

Section 5: Sec 5 is the *formal notification of land* needed for a public purpose published in the official Gazette, where land is to be acquired for a public purpose and the Commissioner, and the Provincial Government, is satisfied thereof, after considering the result of the survey, made under section 4.

Section 5a: covers the need for **enquiry** of the *concerns or grievances of the affected people* related to **land prices** stating the district/ division, the *purpose* for which it is needed, its approximate **area and situation**, and *where a plan has been made of the land*, the *place where such plan may be inspected*, and Any person interested in any land which has been notified under section 5 as being needed for a public purpose may, **within 30 days** after the issue of the notification, **object to the acquisition of the land** or of any land in the locality, as the case may be.

Every objection shall be made to the *Collector in writing*, and the Collector shall give the *objector an opportunity of being heard either in person or by pleader* and shall, after hearing all such objections and after making such *further inquiry*, if any, as he thinks necessary, *submit the case for the decision of the Commissioner* together with the **record** of the proceedings held by him and a **report** containing

his recommendations on the objections. The decision of the Commissioner on the objections shall be final.

Section 6: when the Commissioner is satisfied¹¹, after *considering the report, made under section 5-A*, that any particular land is needed for a public purpose, a declaration shall be made to that effect under the signature of the Commissioner or some officer duly authorized in the official Gazette. No such declaration shall be made unless the compensation to be awarded for such property is to be paid wholly or partly out of public revenues or some fund controlled or managed by a local authority. Declaration shall state district/division in which the land is situated, the purpose for which it is needed, its approximate area, and, where plan shall have been made of the land, the place where such plan may be inspected. When the area in respect of which the said declaration is made is **less than** the area previously notified under section 4, such *previous notification*, shall be deemed to have been **superseded**.

Section 7: The Land Commissioner or some officer authorized by the Commissioner, shall direct the Land Acquisition Collector (LAC) to **order the acquisition of the land**.

Section 8: The LAC then has to direct that the *land acquired to be physically marked out, measured and planned* and if no plan has been made thereof, a plan to be made of the same.

Section 9: The LAC gives notice to all DPs that the government intends to take possession of the land and if they have any **claims for compensation** then these claims are to be made to him. Such notice shall state the **particulars of the land**, and shall require all persons interested in the land to **appear personally or through an agent before the Collector after fifteen days of the date of publication of the notice**, and to state amount and particulars of their claims to compensation for such interests and their objections to the measurements made under section 8. The LAC may require such **statement to be made in writing and signed** by the party or his agent.

The LAC shall also serve notice to the same effect on the occupier of such land and on all such persons known or believed to be interested therein, or to be entitled to act for persons so interested, as reside or have agents authorized to receive service on their behalf, within the revenue district in which the land is situate. The Collector shall also serve notice of the enquiry to be held under section 11, fifteen days prior to the date for determination of claims and objections on the Department of Government, for which land is being acquired, and require it to depute a duly authorized representative to attend the enquiry for the purpose of making objections (if any) to the measurement of the land, claims to any interest in the land or the amount of any compensation.

Section 10: delegates power to the LAC to **record statements of the DPs** in the area of land to be acquired or any part thereof as *co-proprietor, sub-proprietor, mortgage, and tenant or otherwise*. The LAC may also require such person to deliver to him, not earlier than fifteen days after the date of the

¹¹ Subject to the provisions of Part VII of the LAA Act,

requisition, a statement containing, name of every other person possessing any interest in the land or any part and of the nature of such interest, and of the rents and profits (if any) **received or receivable for three years next preceding the date of the statement.**

Section 11: enables the LAC to make enquiries into the measurements, value and claim pursuant to a notice given under section 9, to the measurements made under section 8, and into the value of the land at the date of the publication of the notification under section 4, and then to issue the final “award”. The award includes the land’s marked area and the valuation of compensation. The award shall be for the : i) the **true area of the land**; ii) **compensation which in his opinion** should be allowed for the land; and iii) the **apportionment** of the said compensation among all the persons **known or believed to be interested** in the land, of whom, or of whose claims, he has information, **whether or not they have respectively appeared before him.**

Section 16: when the **LAC has made an award under Section 11**, he will then **take possession** and the land shall thereupon vest absolutely with the Government, free from all encumbrances.

Section 17: emergency clause that allows **acquisition of land prior to compensation of DPs**. This clause will not be applied in any project of PPP as it denies consultations with land owners and their right to appeal to the land prices and matters related to the acquisition of land.

Section 18: in case of **dissatisfaction with the award, DPs may request the LAC to refer the case onward to the court for a decision.** This does not affect the Government taking possession of land.

Section 23: award of compensation to the title holders for acquired land is determined at i) its **market value of land**¹², ii) **loss of standing crops, trees and structures**, iii) **any damage sustained at the time of possession**, iv) **injurious affect to other property** (moveable or immovable) **or his earnings**, v) **expenses** incidental to compelled **relocation** of the residence or business, and vi) **diminution of the profits** between the time of publication of **Section 6 and the time of taking possession** plus **15% premium**¹³ **in view of the compulsory nature of the acquisition for public purposes.**

Section 28: relates to the determination of compensation values and **interest premium for land acquisition. (6% per annum from the date of possession).**

Section 31: provides that the LAC can, instead of awarding cash compensation in respect of any land, make any arrangement with a person having an interest in such land, **including the grant of other lands in exchange.**

¹² In Sindh, the LAA 1894 was amended in 2010 and was called the “Land Acquisition (Sindh Amendment) Act, 2009. Market value of the land will be assessed on the date of the **issuance of Section 6** instead of at the time of notification of Section 4.

¹³ Section 28-A of the LAA 1894 dealing with the additional compensation which allowed the provision of an additional amount of 15% per annum on the compensation fixed from the time of issuance of Section 4 till the announcement of award was omitted.

Costing of Claims in Construction Contracts

The following is a review of claims that arise in a infrastructure project due to cost and time overruns. It provides a reference to evaluate claims may arise throughout the project life cycle. Claims are a key risk in PPP projects as due to schedule and scope slippages, cost is impacted, and claims are generated by private party for compensation. This write up provides an objective frame of reference of what areas such claims can be based on and generated. (Ref: 1)

Costing of claims is one of the critical areas in any construction industry. The claimant may seek additional monetary compensation or an extension of time for completion of work, or both. The process and procedure of claim management in construction starts with basis of claim, keeping the supporting documents, and detailed particulars within the stipulated time, and the proper allocation of the cost. Once a contract between owner and contractor has been executed, the **construction drawings acquire the status of legal documents: They are instruments of the contract**, as well as the focal point of the construction process.

FIDIC – **Federation International Des Ingenieurs-Conseils** is one **standard form of conditions of contract** for *engineering works* which is accepted all over the world. FIDIC is the international Federation duly elected **associations of consulting engineers** representing the profession in their respective countries. The **costing of claims in the construction industry governed by FIDIC Conditions of Contract**. Essentially, claims in construction contracts, governed by FIDIC conditions, may be based on any one of the following concepts:

A claim under the contract based on the grounds that a particular **provision of that contract** entitles a claimant to a remedy, which is **specified if a certain event, occurs**. A claim arising out of the contract based on the grounds that a **term of the contract has been breached** but where the **remedy is not designated**. A claim under the applicable law of the contract, based on the grounds of a **specific legal rule or principle**. If the claim is successful, the remedy is generally a **just and equitable award**, depending upon the particular circumstances of the case.

The contract is **priced on the definite bill of quantities** and sometimes the **quantity variation** is allowed as the final sum is arrived by **re-measuring the quantities**. Though works can be measured with existing bill of quantities, the **additional time and cost impact** the contractor undergoes can be **added to the final value of the variations / additional works**. The detailed particulars like the impact of the *change in sequence, additional works* etc on the main work shall have to be **substantiated by judicious calculations** and submitting the final impact in terms of money and time. Thus understanding the cost carries a vital link to the costing of claims and finally its realization.

In most cases, the burden of proving any given claim rests with the claimant; he who asserts must prove. Claims must therefore be adequately documented. Contemporaneous records in the form of reports, diary entries, correspondences and minutes of meetings, can be extremely useful in

establishing the causal nexus. These will comprise contractual and administrative documents including: tender and contract documentation; **works record sheets, daily record** of labor, plant, supervisory staff, etc; **materials** received and issued with relevant **orders / invoices; drawings register**; correspondence and minutes files; **site diaries**, site instructions; variation orders, **additional works / day works register; contractual program** original, and periodic updates as approved; **as built programs**; photographs and / or video (preferably with dating facility); agreed measurements; delay notifications, claim notifications, periodic financial and cost accounts. If the claimant has all this, then *the Claimant will be an excellent position to prove his case. Without this, the claimant will find it extremely difficult to substantiate otherwise valid claims.*

The claim document shall contain *salient features of the contract, relevant milestone events, brief background details of the claim, and the justification for entitlement (in brief) and the amount / remedy sought.* It is of vital importance to spell out precisely on what contractual basis the claim is founded. It is also essential to state clearly the event or events pertaining to the claim.

It is also important to remember that **delay does not always bring an entitlement to an extension of time, and that granting of an extension of time does not always bring money.**

Evaluation of the Claim:

The evaluation section will give reasonable details of the work out of costs for each and every head of costing that is relevant to the claim. It will justify, using commonly accepted norms / standards and industry practices.

Events leading to claims, and in fact, most construction claims, can be categorized into four broad groups: a) Claims due to **extended stay** at site due to delays / disruptions, b) Claims due to **variations** and change orders, c) Claims due to **unforeseeable physical conditions**, d) Claims due to increased costs on account of ordered or **constructive acceleration**.

Claims due to extended stay at site due to delays / disruptions:

The contractor would generally incur additional indirect cost on account of extended stay at site (It is presumed that the quantum of works has not increased). In other words, since the time spend at site by the contractor has increased, when compared to what was envisaged at tender stage, **time related costs would generally increase.** The following costs are increased:

Manpower Costs: **Indirect manpower** engaged in the works like office boys, watch and ward staff, stores personnel, plant maintenance crew etc., **supervisory costs** such as salaries of managers and other supervisory and administrative staff.

Equipment Costs: **Ownership costs** for the extended period, or **hire charges** if the equipment is leased from other parties.

Power & Fuel: The consumption for colonies, **camps**, general services etc.

Insurance & Financing costs: These costs would be incurred due to **extensions of bonds, insurances & guarantees** as well as deficit cash flow generally caused by long delays or disruptions. Other revenue expenses, which are time related, will also increase.

Claims due to variations and change orders:

The most important aspect of the valuation of a claim is that a proper time and **motion study**¹⁴ is required to be prepared for the varied or additional work with particular stress on labor productivity, equipment productivity and use / wastage of materials in the work. Contemporaneous records have a very vital role to play in such a claim.

Valuation of such claims can take various forms. For such an exercise, normally the contract provides guidelines (e.g. clause 52 of the FIDIC conditions). The **rates for the work will be normally compared with existing or similar rates available in the Contract**. In absence of such rates, the contractor will be required to present a **build up of rates based on the actual expenditure on manpower, equipment & materials along with mark up for overheads & profit**. The **productivity of all these resources** will be subjected to **scrutiny based on acceptable norms**.

The main emphasis is on the **direct cost element**. A portion of the **preliminary expenses can also be added** (generally as lump sum provision) while for the **overheads and profit (Indirect cost)** a percentage of the prime cost¹⁵ is added. Such a percentage is generally available in standard norms which may vary from 15% to 25% of the prime cost.

Claims due to unforeseeable physical conditions:

The costing of such a claim is **dependent on the steps the contractor takes to counter such a condition**. The contractor may introduce *additional equipment and manpower* for overcoming these situations. The contractor may be required to *carryout new items of work*, or he may be required to adopt a *new methodology* for carrying out the work. In such cases, the *direct costs will play a major role in accounting for a change in applicable rates / increased costs*. If the project suffers *time delays*, then the element of indirect costs also plays a significant part in quantifying the claims.

Claims due to increased costs on account of ordered or constructive acceleration:

This type of a claim is associated with **induction of additional resources used for acceleration**. For providing the eligibility under such a claim, a contractor would need a frame or reference. Such a frame of reference would normally be the **construction program and methodology submitted along with the tender**. Many tender offers do require the **contractor to declare the manpower and equipment's** envisaged at tender stage. These provisions could be established in the Clause 14

¹⁴ Motion study refers to the study of movements like lifting, putting objects, sitting and changing positions, etc., which are undertaken while doing a typical job. Unnecessary movements are sought to be eliminated so that it takes less time to complete the job efficiently.

¹⁵ A prime cost is the total direct costs of production, including raw materials and labor. Indirect costs, such as utilities, manager salaries, and delivery costs, are not included in prime costs.

program / method statements. In case the acceleration is ordered by the client, the case would be relatively easy to prove.

There may be cases where a contractor has *applied for extension of time, and the engineer has not granted such extension of time*, and on the other hand, issued notice under Cl.46.1 of FIDIC¹⁶. In such case, the *contractor is obliged to increase his resources and complete the project by the original completion date*. If the contractor can subsequently establish his case for time extension, such a case would be defined as constructive acceleration.

COST

Cost is defined in FIDIC as all expenditure properly incurred or to be incurred, whether on or off the site including overhead and other charges properly allocable thereto but does not include any allowance for profit. Costs are traditionally divided into three main groups: direct costs, indirect costs, preliminary & enabling costs.

Direct Costs: The term direct is used, and the expenses so classified, when the expenses can be attributed precisely or with reasonable accuracy to an item of payable work. These costs vary in direct proportion to the **volume of payable work executed**. Direct Costs may be further subdivided into *direct labor, direct material, direct sub contract, direct power and fuel*.

Indirect Costs: These expenses include costs on labour, material etc. which cannot be attributed to an item of payable work but are **general in nature**; in addition, *expenses on equipment (ownership and operation), salaries of managers and supervisory staff, site running expenses, revenue expenses, insurance costs, financial charges*, etc. are also classified as indirect expenses. The basic criteria are that indirect expenses are mainly a function of time rather than a function of progress.

Preliminary and enabling expenses:

These are generally expenses incurred on *site installations like housing / hutting, plant foundations, water & power lines* and other **enabling works**. These expenses are not necessarily one-time expenses; the criterion that is applied is that the *benefit from these expenses would be of an enduring nature*. e.g. air lines, water lines and ventilation ducting in tunnels. These costs are generally **amortized** over the life of the project such that all preliminary expenses are fully charged at 90% of project completion.

The various types of events leading to **time and cost implications under the FIDIC provisions** are: *manpower costs, equipment costs, material costs, financial costs including interest, on site indirect costs or on site overhead, off site indirect costs or off site overheads, risks, contingencies & margin*.

Manpower costs: comprise the cost of labor both *direct and indirect labor* and the cost of *supervisory staff* including managers. The costs included the wages and salaries paid on the basis of **payrolls**,

¹⁶ clause. 46.1(Rate of progress)

and benefits- both *statutory, and perquisites* extended by the company. Manpower costs would also include the cost of *recruitment and repatriation especially for seasonal labor, and retrenchment and other compensation paid to workmen*. The manpower can be ascertained from the **payrolls / wage records** and such records can be used to substantiate these costs if necessary

Direct labor cost is generally used in *claims for variation / additional items of work* or whenever payable items of work are concerned. This cost is allocated on the **basis of man-hours or man days per unit of work**, which is usually to be agreed with the client on the basis of contemporary records. If a day work schedule for labor rates forms a part of the contract, it is generally more advantageous for the contractor to use these rates for valuing the direct labor component of the varied work. In cases of disruptions where no works can be done for a significant period of time and the contractor is not in a position to re deploy such labor on other works, or repatriate his labor force, either due to the inordinately high cost involved in such repatriation, or that the contractor would not find suitable labor once the disruption ceases, the manpower cost for this retained workforce can reasonably be claimed as **idle wages**.

If there is a delay in the works, resulting in a lesser progress than planned as per the agreed construction program, the contractor, in any case, has to incur the full cost of his direct labor. In this scenario, the contractor may claim such additional costs occasioned by the reduced productivity of his direct labor.

In a claim for acceleration, whether direct or constructive, the contractor can claim the cost of additional direct labor man days or man hours that he has introduced in the works for the purpose of such acceleration. The **price adjustment clause** would normally cater for the increase in the direct labor cost occasioned by rise in the cost of living / **general inflation and price variation clause** specifically debar claims on these accounts.

Indirect labor: Costs comprise the cost of services rendered by, watch and ward, store helpers, survey boys, and workshop maintenance crews. These costs are generally used in claims for extended stay and disruption.

Supervision Costs: The cost incurred on managerial, supervisory and administrative staff falls under this element of cost. These are indirect expenses, and generally not linked to work progress. These costs are also **generally used in claims for delay and disruption**. However, if in a varied or additional item of work, it can be demonstrated that such item of work required **additional or special supervision**, such additional supervision shall become a direct cost element for valuation of that particular varied work.

Equipment Costs: Equipment introduced on a project would be of two types: company's own equipment, and hired equipment. While working out the equipment costs the factors to be considered are as follows: 1. ownership Costs, 2. operation / running costs, 3. repairs / maintenance Costs

In case of extended stay claims, the contractor is required to provide the equipment on site for a period longer than originally envisaged. In case of only disruption, the **equipment's will be idle**. The contractor will nevertheless incur the **ownership costs**, which can be put up as a claim. However, in case of a delay (slow progress of works), not attributable to contractor, he will incur all three types of costs, which need to be compared with the original estimate. Such incremental costs can be put up as a claim. In cases of variations / additional works, wherever payable items are concerned, the **cost** is allocated on the basis of use **rate of equipment per unit of work** which is usually to be agreed with the client on the basis of contemporaneous records. However in case of new equipment to be introduced for changed scope of work / method of construction, the **unit cost** needs to be worked out from first principles¹⁷ considering all three types of costs enumerated above.

Contemporaneous records means documents or records created at the same time as an event or activity, essentially capturing details as they happen, providing the most accurate reflection of what. They can be used for compliance, and to support claims. Examples include daily logs quality control reports timely letters, electronic sign-in and out systems, real-time digital diaries, live feed web cameras.

In a claim for acceleration, whether directed or constructive, the contractor can claim the Ownership, and Repair costs of additional equipment resources that he has introduced in the works for the purposes of such acceleration. The running costs of the contractor are deemed to be recovered from the payable works at Bill of Quantity rates.

Material Costs: The elements of material costs are as follows: 1. Basic material cost 2. Relevant Taxes

Handling / Transportation costs: The market prices of materials may change during course of any delay / disruptions that the project may suffer. However, the work involving these materials, whenever executed, will be paid at **Bill of Quantity rates plus escalation** at that point of time. The **change in basic material prices are deemed to be covered by the escalation formulae and thereby cannot form the subject matter of a claim related to time lag**. However, **in case of a change in specifications / substitution of the material / increased wastage** (due to factors beyond the contractors control), the contractor may compute the additional differential cost, which can be the subject matter of a valid claim. A special case for a claim could arise in the case of **perishable materials, not utilized during their shelf life**, due to a delay not attributable to the contractor. In such a case, the contractor would be entitled for a rightful claim as to the total costs of the materials damaged.

Overheads: The overhead expenses are categorized as: On site overheads, Off-site overheads (Head Office Overheads). On- site overheads will encompass the various *indirect costs incurred at site, i.e., supervision costs, administrative costs, site running costs, and other revenue expenses like postage,*

¹⁷ the fundamental concepts or assumptions on which a theory, system, or method is based.

telephones, stationery, conveyance & traveling expenses, office expenses etc. These costs are seen to be totally time rated and thereby stand to be claimed in any workout related to additional costs on account of approved time extensions. In case of variations that do not affect the time duration of the project, the on-site overheads will not be affected and thereby not claimable. However, if it can be demonstrated that the variations required additional supervision costs and it can be proved with contemporaneous records, these additional costs can be claimed.

Off – Site Overheads: These costs, which arise out of overall company management, are well recognized as a recoverable cost. These overheads are continuing expenses, which are allocated to the contractors various contracts on a total job cost basis. These are also called share of head office overheads, which cannot be allocated to a particular contract.

The Hudson Formula is a method used in construction contracts to calculate the potential loss of profit and increased overheads a contractor might incur due to delays on a project, essentially, it helps assess the financial impact of delays on a contractor's business model by considering the time lost and the associated overhead costs. The Eichleay Formula is a method used to calculate the compensation a contractor can claim for unabsorbed overhead costs incurred due to delays caused by a project owner,

The profit element in a claim is not recoverable, as it does not fall in the determination of cost as per the FIDIC provisions. However, in case of variations / additional works the profit element can be added to the workouts, since the mark up on prime cost is allowed for overheads and profit.

Markup on prime cost refers to the percentage of profit a company adds to the direct cost of producing a good or service, where "prime cost" represents the combined cost of labor and materials directly involved in creating that product, essentially the base cost before adding overhead expenses; it's the amount added to the prime cost to arrive at the selling price.

Setting Project Prioritization Pipeline

This write-up describes the process of prioritization of projects and methods for prioritization. Developing a PPP Project Pipeline is a statutory requirement of the PPP framework, and developing a PPP pipeline based on commercially viable, affordable projects is vital for sustainable pipeline of projects that can be implemented effectively and within manageable fiscal limits. The relevance of the write-up is focusing the stakeholder's attention on what this task entails and methodology of how the task can be implemented. (Ref: 2)

Strategic Planning for Set of Projects

Transparent decision-making promotes the commitment of those involved by creating understanding and acceptance for the decisions taken and the underlying process. Stakeholders understand better **why certain prioritizations have been made and are more likely to accept them if they can understand how they came about**, namely by taking a close look at the risks and opportunities of the projects in the portfolio.

A formal planning activity results in the formulation of a medium or long-term expansion, rehabilitation and investment plan (covering the coming five years, for example). Projects within the investment plan are *prioritized on economic and other policy grounds*, such as according to *social and level priorities*. The **investment plan feeds the project pipeline**. Projects can be taken from the plan and developed individually, either through the traditional public sector route or as a PPP.

A strategic plan is sometimes referred to as a sector master plan, sector *expansion plan or development plan* (such as a city or urban development plan). Examples include *network expansion plans, for example in electricity, natural gas or water and sanitation*. Examples at the broader level include the central and provincial governments' five-year plans.

The broader, sector-level focus of strategic planning activity is what sets it apart from the other activities in the PPP process. *Strategic planning is the one step in the process that does not take place with each individual project.* It identifies infrastructure needs across the sponsoring Agency's jurisdiction currently and into the future. A strategic plan may also be **part of a broader multi-sector plan, such as an urban development plan** which integrates planning for transport, water and sanitation, and solid waste management with other urban issues such as housing.

Analysis or assessment is involved, where an understanding of the current internal and external environments is developed. It includes an assessment of the **current infrastructure situation**, including the delivery capacity in existing infrastructure and existing plans for service expansion. Finally, the plan evolves to strategic execution, where the high level plan is translated into more operational planning and action items,

Preliminary Need Assessment Study

The key drivers for planning an infrastructure program are the service needs of the end-users. An overall **needs assessment** should be carried out taking account of the **types of services users will need**, total user demand for those services, and all sources of existing and planned delivery of services. A "**needs assessment**" is a systematic process of identifying and analyzing the **gaps between current conditions and desired conditions**, essentially determining what needs to be addressed or improved in a particular situation. Planning for infrastructure services that are provided by assets with long lives should include a needs assessment that covers a correspondingly long period. This requires a holistic view taking account of factors that might affect the **level and location of demand**, including expected and planned urban and industrial development.

Examples of needs assessments in infrastructure project development include: assessing the **condition of existing infrastructure** like roads, bridges, and water systems to identify areas of **deterioration** or **capacity limitations**, analyzing traffic patterns to pinpoint **congestion** hotspots, conducting surveys to understand community needs for transportation access, evaluating environmental impact potential, and assessing the **resilience** of infrastructure to natural disasters; all aimed at identifying gaps and prioritizing necessary improvements.

Infrastructure services can be defined and measured in total for all users and broken down into totals for specific groups of users. The strategic plan should provide at least a preliminary assessment of needs for **user groups that would be served** by particular infrastructure assets or integrated systems. These can then be **mapped to individual project interventions**.

Common Mistakes in Project Prioritization

Project prioritization is a decisive step in project management which is often connected to a series of challenges and obstacles. To ensure effective prioritization, it is important to be aware of the most common mistakes and develop strategies to avoid them. The following are some of the **common mistakes in project prioritization**:

1. **Unclear definition of objectives:** Unclear or contradictory project objectives can lead to confusion and ineffective resource utilization. Clear and unique objectives are decisive for successful projects and their prioritization.
2. **Missing prioritization criteria:** Without clear criteria for prioritization, projects can be selected on a subjective basis. A definition of objective criteria is important.
3. **Negligence of risks:** Projects with high risk should not be overlooked, since this may lead to a substantial financial loss. An integrated risk evaluation is indispensable.

4. **Lack of stakeholder involvement:** The involvement of relevant stakeholders is decisive to consider their perspectives and requirements.
5. **Missing flexibility:** With a rigid approach in project prioritization you are unable to react appropriately to changes or new information

Assessment of existing and planned service capability

The existing infrastructure should be assessed for its **ability to deliver the currently needed services** and the service requirement expected for the future. This assessment will tend to focus on existing assets or systems and the way they are currently managed. An assessment should be made of the **service capacity** of existing assets. The **service standard** provided by existing assets which are typically measured by **performance indicators** relevant to the sector. The third assessment is of **condition of existing assets**, including how well maintained they are, their age and the number of years **remaining in their useful lives**

The assessment of asset condition would need to be carried out for all assets in the system. Best practice is to prepare an **asset inventory** that records the essential details of each component asset in the system. The inventory should include at least: a description of the asset, date of installation, expected useful life, asset value, maintenance cycle.

An assessment should also be made of existing plans for new infrastructure or planned infrastructure improvements. This should include a review of existing Technical Due Diligence Studies, including those that have already been approved and those still under preparation.

Expression of Project Need

Normally, projects are conceived on the basis of existing or future need among a cross section of society. Sometimes, projects are an **outcome of political commitments**. Sometimes, they are conceived as a part of the Centre Sponsored or Provincial Sponsored Schemes or Master Plans for Cities / City Development Plans / City Traffic and Transportation Plans. In all these cases, the common factor is the **interest of the people and their need for the project**.

Ideally, projects are finalized only after an elaborate sector analysis, assessment of demand and supply for the service delivery option, identification of gaps in service delivery, and a review of local community issues that might emerge from stakeholder consultations.

A misconceived project tends to fail because there was never any real demand for the service or asset in the first place.

Type of Needs:

Projects emerge from a need to fulfill public service or economic development requirements of the general public or a specific community. Sometimes the **need is obvious such as when basic**

housing, health, water services, etc. are lacking or inadequate. At other times need could be latent and based on future demand brought about by changes in aspirations or economic and social circumstances. For instance, the **development of a bridge** across a *river where people initially commuted by way of ferry* is an outcome of the **expressed need of the people**. On the other hand the development of an **integrated township** is also an outcome of a **latent need** among people to *organise their livelihoods and function in a non-congested and well planned city*.

There are two kinds of needs:

1. A need which is an **improvement on the existing facility**, such as greater capacity, newer technology or integration of the existing facility with another service/project. Road widening and increasing the capacity at airports or ports.
2. A new need for a **service or facility which was never there before**. New townships and industrial clusters.

Project needs can be similarly categorized as either a need for development in an area with no basic infrastructure in place at all or the need for development in an area which has some basic infrastructure. In certain cases, the public entity proposes the creation of **completely new infrastructure** in a place where even a basic water or power supply or connectivity is barely available. Other projects are conceived to **improve services in places where infrastructure already exists**; these could be a sewerage network in a metro or the construction of a new international convention Centre in the heart of a city.

Prioritization of Projects in Multi-Project Management

Multi-project management (MPM) refers to the practice of *simultaneously managing and coordinating multiple projects within an organization*, often with shared resources, to **optimize resource utilization, minimize risks, and achieve strategic goals by effectively planning, controlling, and monitoring all projects involved; essentially, it's the process of overseeing several projects at once, ensuring they are aligned and **don't impede each other due to resource constraints**.**

MPM allows to achieve *synergy effects* by shared resources or complementary project objectives.

An effective project prioritization makes sure that the **most important resources are used for the most valuable projects**. They then receive the highest level of attention and are also the projects that **best meet the desired objectives**.

If multi-project management **lacks efficient project prioritization, resource bottlenecks and project delays may occur**. These problems **impair the ability to achieve their long-term objectives**. To respond to these challenges, there are *different methods to prioritize projects*.

Effective Project Prioritization Decisive for Multi-Project Management

If projects are prioritized depending on their **strategic significance and urgency**, **critical projects can be started and concluded in good time**. The optimized use of scarce resources like personnel, time, and budget lead to an increase in efficiency. An inefficient resource allocation increases the **risk for budget overruns and delays** in project implementation. *If unimportant projects receive too much attention, strategically important projects are neglected, and goals may be missed.*

Advantages of a Structured Prioritization Process

A *structured prioritization* of projects includes *identification of project ideas* and the creation of projects, determination and *weighting of evaluation criteria*, project evaluation by a *scoring model*, resource allocation based on project priorities, Stakeholder engagement and communication, monitoring and adjustment of the priorities.

As a result, the following advantages arise in multi-project management: clarity and **uniform understanding** of the prioritization of all projects, improved decision-making based on **defined and weighted project risks and opportunities**, quicker overview and reaction to changes and new challenges, optimizes communication and collaboration of project teams

With the help of project prioritization, limited resources like **time, financial means, and skilled workers** are deployed specifically where they create the greatest added value. Less important projects are more likely to wait for free capacity than critical projects. If sufficient resources are made available for important projects, they can be *completed on time*. Adherence to budgets is enhanced by clearly prioritized projects since *resource overlapping* and risks are taken into account in good time.

Prioritization Methods (Selection Criteria) Can Improve Project Prioritization

Prioritization methods can facilitate the evaluation of projects considerably by providing *systematic and transparent* **decision-making** criteria. Clearly defined selection criteria include, *strategic relevance of project*, expected *opportunities* for the project, projects *resource requirements*, project *risks*, and *urgency of project need*. These criteria enable an *objective evaluation and comparability* of projects.

These criteria are utilized in various prioritization methods and decision tools in project management. In the **ranking method**, **values are assigned to the evaluation criteria** and they are then added. The project with the **highest score gets the highest priority**. A good choice is the ranking in projects with a **maximum of three evaluation criteria** that can easily be calculated.

Strategic projects can be better evaluated with a **scoring model**. This allows for an extensive **weighting of a multitude of selection criteria**. Criteria that are less easy to calculate, such as strategic relevance, risk factors, urgency or economic benefit, are also included in a scoring assessment.

For particularly **large project portfolios**, the *domain approach* is suitable. Projects are **compiled by subject areas** and managed in a **decentralized** manner. Some organisations use **ranking or scoring models** to set priorities within the respective subject area.

What Prioritization Methods are There in MPM?

Every prioritization method in multi-project management is defined by different characteristics and areas of use and comes with **different advantages and disadvantages**. The **type of projects** determines the prioritization method used.

The scorecard model is considered an all-rounder since it allows for a holistic project evaluation. Financially driven projects in which the focus is on **ROI use the cost-benefit-analysis**. For **short-term projects or in the case of an emergency situation**, the **Eisenhower matrix** can be helpful. The **MoSCoW method** is used in agile project management to **prioritize requirements**. With the **AHP method**, complex and long-term projects can be analyzed.

Costs-Benefit Analysis

This method uses measurable data like *costs, turnover, or time spent*. The **highest benefit, for example a better ROI, should be achieved with the least effort**. The cost-benefit analysis is often the basis of projects with *measurable financial results*, e.g. in public administration or in huge companies with comprehensive budget decisions. It helps to make investment decisions and serves to **evaluate the economic efficiency** of activities and projects.

This evaluation helps to ***resolve the problem of budget shortage by ensuring that only the projects with the greatest financial benefit are implemented.***

The advantage is that the *evaluation is clear and objective*, and a simple comparison of projects is possible. A disadvantage is that exact data are required for a more precise analysis.

Eisenhower Matrix

This method classifies tasks based on **urgency and importance**. Tasks are subdivided into four categories: important and urgent, important but not urgent, urgent but not important, neither important nor urgent. In some cities, governments might use the Eisenhower Matrix to **prioritize**

emergency repairs to critical roads while deferring non-urgent, longer-term infrastructure upgrades.

The Eisenhower matrix is not only used in smaller projects but often in prioritization of **personal tasks and in time management** as well. Activities that are not important or urgent can be delegated or eliminated. It resolves the **overload problem** caused by too many tasks running in parallel by defining clear priorities. Software features like “Work in Progress” (WIP) help to restrict the maximum number of permitted parallel tasks.

The convincing advantages are the **simple operation** and the **quick implementation** regarding time management and productivity. A disadvantage is the subjectivity of evaluation.

Scorecard model

The Scorecard Model, specifically the Balanced Scorecard (BSC), is a strategic planning and performance management tool that helps organizations translate their strategic objectives into measurable outcomes across four main perspectives:

Financial Perspective: Measures the financial performance and resources required to execute the strategy. In the government context, this could involve tracking costs, budget adherence.

Customer (or Stakeholder) Perspective: Focuses on stakeholder satisfaction, such as the public or other government entities. For government projects, it could measure the **effectiveness of public services or infrastructure projects in meeting the needs of citizens.**

Internal Processes Perspective: Assesses the internal processes that enable the government to achieve its objectives. For instance, it could include metrics like **project delivery times, regulatory compliance, or efficiency** in government operations.

Learning and Growth Perspective: Focuses on the continuous improvement of employees, technology, and innovation within the government to enhance future performance. This might include **workforce development, training programs, or adoption of new technologies** to improve service delivery.

The model helps to ensure a holistic evaluation and prioritization of projects by several weighted criteria. It **resolves the problem of one-sided evaluation, by taking several relevant factors into account.** The biggest advantage is the balanced and comprehensive evaluation which can be applied to different projects. The time-consuming implementation does not count as a disadvantage.

Governments use the Balanced Scorecard to **align various departments and agencies with overarching national or regional strategic objectives**. The scorecard facilitates long-term planning by ensuring that *each department's activities support common goals, such as improving infrastructure, reducing poverty, or boosting public health*.

For example, the Government might use a scorecard to align various agencies with national priorities (e.g., **reducing carbon emissions**). The SEPA (Environmental Protection Agency) might track internal processes like the efficiency of environmental reviews and assessments, while the Energy Department might measure financial performance in terms of cost savings for renewable energy projects.

MoSCoW Matrix

With the *Must have, Should have, Could have, and Won't have* categories, the priorities of project outcomes are clearly defined. The matrix is particularly suitable for **agile projects**¹⁸ and software development projects, where requirements must be prioritized quickly. It helps to resolve the **problem of resource shortage** and to ensure that the most important tasks are completed first.

In infrastructure projects, the **Must Have** items could include **safety measures, accessibility standards, or structural integrity** requirements for bridges or highways. **Should Have** might cover **aesthetic considerations or advanced technologies** like smart traffic systems. **Could Have** could involve additional **landscaping or leisure facilities** that are non-essential.

The convincing advantages are the clarity in prioritization. Furthermore, the matrix can be applied in a simple and flexible way. However, the categorization of requirements can be very subjective, which presents a disadvantage of this evaluation. In addition, too many tasks are often classified as must-haves.

AHP Method

The AHP method breaks down the main problem into a **hierarchy of objectives, criteria, and alternatives** and evaluates the elements according to their importance by pairwise comparisons¹⁹. This complex method is used in project management for large projects, in strategic planning and

¹⁸ An "agile project" refers to a project managed using the Agile methodology, which is an iterative approach to project management that emphasizes **breaking down large tasks into smaller, manageable chunks, allowing for continuous feedback**, adaptation to change, and **frequent delivery of working product increments** throughout the project lifecycle, rather than waiting until the very end to deliver the final product; it prioritizes collaboration and flexibility over rigid planning

¹⁹ A "pairwise comparison" is a method of comparing entities by looking at them in pairs, meaning you directly **compare each item to every other item** in a set to determine which one is preferred, better, or has a greater value in a specific context; essentially, it's a head-to-head comparison between every possible combination of two items within a group.

when choosing technologies. They offer structured decision-making with a high degree of transparency and objectivity by systematic pair comparisons. **Complex projects with numerous criteria are simplified and subjectivity is reduced.** The advantage of the AHP method is a structured approach in the decision-making process which is transparent and comprehensible. The bigger the project, the more complex and time-consuming this method becomes, which can be regarded as a disadvantage.

Project Management tools utilized in MPM

Usually, project management software maps a method, e.g. cost-benefit analysis. Project management software is integral to Multi-Project Management (MPM), providing tools that enhance coordination, efficiency, and control across multiple projects. By offering centralized tracking, resource management, scheduling, risk management, collaboration tools, budget tracking, and reporting, these tools help ensure that all projects are managed effectively, with minimal conflict and maximum alignment to organizational goals.

While there are many types of project management software, the most commonly used platforms for MPM include tools like *Microsoft Project*, *Asana*, *Trello*, *Smartsheet*, *Wrike*, and *Monday.com*, among others. These tools enable better transparency, communication, and resource management, which are critical when dealing with multiple projects running simultaneously.

ANNEXURES – ADDITIONAL INFORMATION

ANNEXURE 1: LIST OF PROJECTS COVERED BY PSF

S.No	Project Name	Line Department	Projects Reviewed in Prefeasibility Stage	Projects Reviewed in feasibility Stage	Projects Reviewed During Bidding	Projects Reviewed in Implementation phase
The first cell highlighted in blue marks the stage the project was first received						
Education Sector						
1	EMOS 1-4	SELD				1
2	EMOS 5-6	SELD		1	1	2
3	EMO 7 -8	SELD	1	2	2	3
4	Teachers Training Institute Hussinabad	SELD				4
5	Teachers Training Institute (3 Institutes)	SELD		3	3	5
6	Non Formal Education	SELD	2	4		
7	JICA Girls School	SELD		5	4	
8	Four Public Schools Project	SELD		6		
9	Sindh Secondary Education Improvement Project (SSEIP)	SELD	3			
10	Provision of Free Transport to the Girls Students of Grade 9-12 In Selected Districts	SELD	4			
11	Solarization of Schools	SELD	5			
Health Sector						
12	Regional Blood Bank Jamshoro	Health				6
13	Regional Blood Bank Sukkur	Health				7
14	JPMC Security and Safety Contract	Health		7	5	
15	NICH Security and Safety	Health		8	6	
16	Health Management Organisations	Health		9		
17	Drugs Addiction Treatment Centre Project	Social Welfare Department	6			
Roads and Motorways Sector						
18	MEW	LGD		10	7	8
19	GKBP	W&S				9
20	URI Mauripur	LGD		11	8	
21	URI Korangi	LGD		12	9	
22	Link Road Project	W&S		13	10	10
23	Karachi Thatta Dual Carrieway	W&S				11
24	TMK to Sajwal Hyd to TMD	Works & Services		14		
Water and Irrigation Sector						
25	Hub Canal	KWSB		15	11	
26	TP1	KWSB		16	12	
27	TP4	KWSB		17		
28	SMGD Desalination project	KWSB	7	18	13	
29	Sukkur Water Distribution (USP)	LGD	8			
30	Nabisar/Vajihar Water Supply Project	Water Supply				12
31	65 MIGD Water Project	KWSB	9	19		
32	Karachi Bulk Water Supply Project	LGD	10			
33	Lyari Sewage Rehabilitation Project	LGD	11			
34	North Western Canal Project	Irrigation Department		20		
Industrial, Tech and Economic Zones and Ports						
35	Marble City	Investment Dept			14	
36	Khairpur Special Economic Zone Project	Investment Dept				13
37	NED Park	NED University	12	21	15	
38	Keti-Bander Project	W&S/Energy		22		
39	Dhabaji Industrial Zone			23	16	
Parks and Recreation Sector						
40	Rani Baagh Development Project	LGD		24		
41	Shaheed Benazir Bhutto Park Project	Karachi Development Authority		25		
42	Outsourcing of Existing Recreational Facilities	Sindh Tourism Development Corporation	13			
Transport Sector						
43	Yellow Line Bus Operations Project	Transport & Mass Transit Department	14			
Real Estate and Housing Sector						
44	Lyari Development Housing Scheme 42 Project (Lyari)	Sindh Civil Servants Housing Foundation	15			
45	Sindh Civil Servants Housing Foundation (Malir)	Sindh Civil Servants Housing Foundation	16			
46	Carbon Reduction Project - Carbon Credits	Forest Department	17			
Total Project Reviews			17 + 25 + 16 + 13			71

ANNEXURE 2: LIST OF PARs MADE BY PSF

S.No	Project Name	PARs Made	PARs Approved	PARs Funded
Education Sector				
1	EMOs RFP 1-2	1	1	1
2	EMO RFP 3	2	2	2
3	EMO RFP 4	3	3	3
4	EMO RFP 5	4	4	4
5	EMO RFP 7	5	5	5
6	Teachers Training Institute Hussinabad	6		
7	Teachers Training Institute (3 Institutes)	7	6	
8	JICA Girls School	8	7	
Health Sector				
9	Regional Blood Bank Jamshoro	9	8	6
10	Regional Blood Bank Sukkur	10	9	
11	JPMC Security and Safety Contract	11	10	
12	NICH Security and Safety	12		
Roads and Motorways Sector				
13	MEW	13	11	
14	GKBP	14	12	
15	URI Mauripur	15	13	
16	Link Road Project	16		
17	Karachi Thatta Dual Carrigeway	17		
Water and Irrigation Sector				
18	Hub Canal	18	14	
19	TP1	19	15	
Industrial, Tech and Economic Zones and Ports				
20	Marble City	20		
21	NED Park	21	16	

ANNEXURE 3: COMPARISON OF METHODS OF PRIORITIZATION

Prioritization method	Characteristics	Area of application	Advantages	Disadvantages
Cost-benefit analysis	Compares the expected benefit of the project with the effort in the form of costs	Projects with focus on ROI (Return on Investment)	Clear balance between costs and benefits	Qualitative aspects can easily be neglected
			Easily quantifiable	
Scorecard model	Weighs several criteria, is considered particularly versatile	Versatile strategic and complex projects	Versatility	High effort required to create and evaluate the criteria
			Holistic project evaluation	
Eisenhower matrix	Categorizes tasks and projects by urgency and importance	Short-term projects	Sets clear priorities	Evaluation often subjective, loss of objectivity
			Easy to use	
MoSCoW method	Categorized tasks in the project by	Agile projects and in application management	Very clear prioritization	A good choice for short-term projects in particular, less so for long-term projects
	Must have,		Flexible	
	Should have,			
	Could have,			
	Won't have			
AHP method	Represents objectives, criteria and alternatives hierarchically and compares the	For complex and long-term projects	Detailed analysis for decision-making	Complex and time-consuming in terms of data collection and analysis

	characteristics for evaluation with each other		Objective and transparent	Requires mathematical skills
			Flexibility for necessary adjustments	

ANNEXURE 4: BREAK-UP OF EISENHOWER METHOD

Eisenhower Matrix	Urgent	Not urgent
Important	Urgent and important	Important but not urgent
	These tasks (e.g. important meetings or the management of crises) requires a high degree of attention and have a huge impact on objectives and projects.	These activities primarily include long-term planning. They are relevant for sustainable and future-oriented success, but do not have to be completed immediately.
Unimportant	Urgent but unimportant	Unimportant and not urgent
	Interruptions, calls or e-mails that are urgent but unimportant can be delegated, postponed or reduced, as they do not contribute to long-term success.	These duties are usually trivial and can be neglected, as they are not crucial to the success of the project.

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